

A new 19-kilo base station is born. The new pico base station was the main Ericsson attraction at Cannes in France last week. It is no bigger than a briefcase and can be installed in 20 minutes by one person. During the spring, field studies will be performed using real mobile networks. Photo: Lars Åström/Världsbilden

Pico base station attraction in Cannes

Everyone was there. Everyone who is anyone in the world of GSM was in Cannes last week. Ericsson launched the new pico base station, which is designed to provide better indoor coverage. The robust new R 250 Pro mobile phone was also presented. **10-11**



In Visby, Nils Jakobsson, Susanne Linell, Ylva Bergvall and Håkan Ek have made considerable progress in equality measures at Ericsson. Photo: Mia Widell Örnung

Visby prioritizes equality

There is still some way to go before complete equality is achieved at Ericsson. Equality efforts have intensified in recent years and certain workplaces have done more than others. Contact presents some of these places in a series of articles. Visby in Sweden is first. **20-21**

Erieye deal imminent

The final negotiations for the Greek Erieye order are lasting 14 hours a day. This is one of Ericsson's largest orders ever, with a value of SEK 4.5 billion. The contract is expected to be signed at the beginning of April. **24-25**

NEWS

New network in Spain

Spain's third mobile network was completed in record time. Installation engineers were called in from various Ericsson companies. Many worked around the clock for weeks to make it in time. **13**

Unique project at Berkeley

The academic world and the telecom industry join forces for a new project at University of California in Berkeley. Research is being carried out into the next generation but one of mobile telephony. **18-19**

AXE delivered in half the time

Using a new packaging method for AXE products, customers can have a complete station installed and tested in 24 days. The new packaging revolution utilizes fixed telephone exchanges. **3**

Progress in Sri Lanka

Fewer than one in twenty Sri Lankans have access to a telephone. The market has now been deregulated. Last year, Ericsson received a contract to modernize the island's AMPS mobile network. **15-17**

60 YEARS OF CONTACT

Service sales are nothing new at Ericsson. Contact reported on this as early as 1939. **29**

PORTRAIT

Just over nine months left until the millennium. Roland Sjöö doesn't believe in any disaster theories, but says that Ericsson still has a lot to do. **2**

contact

The publication for Ericsson employees all over the world

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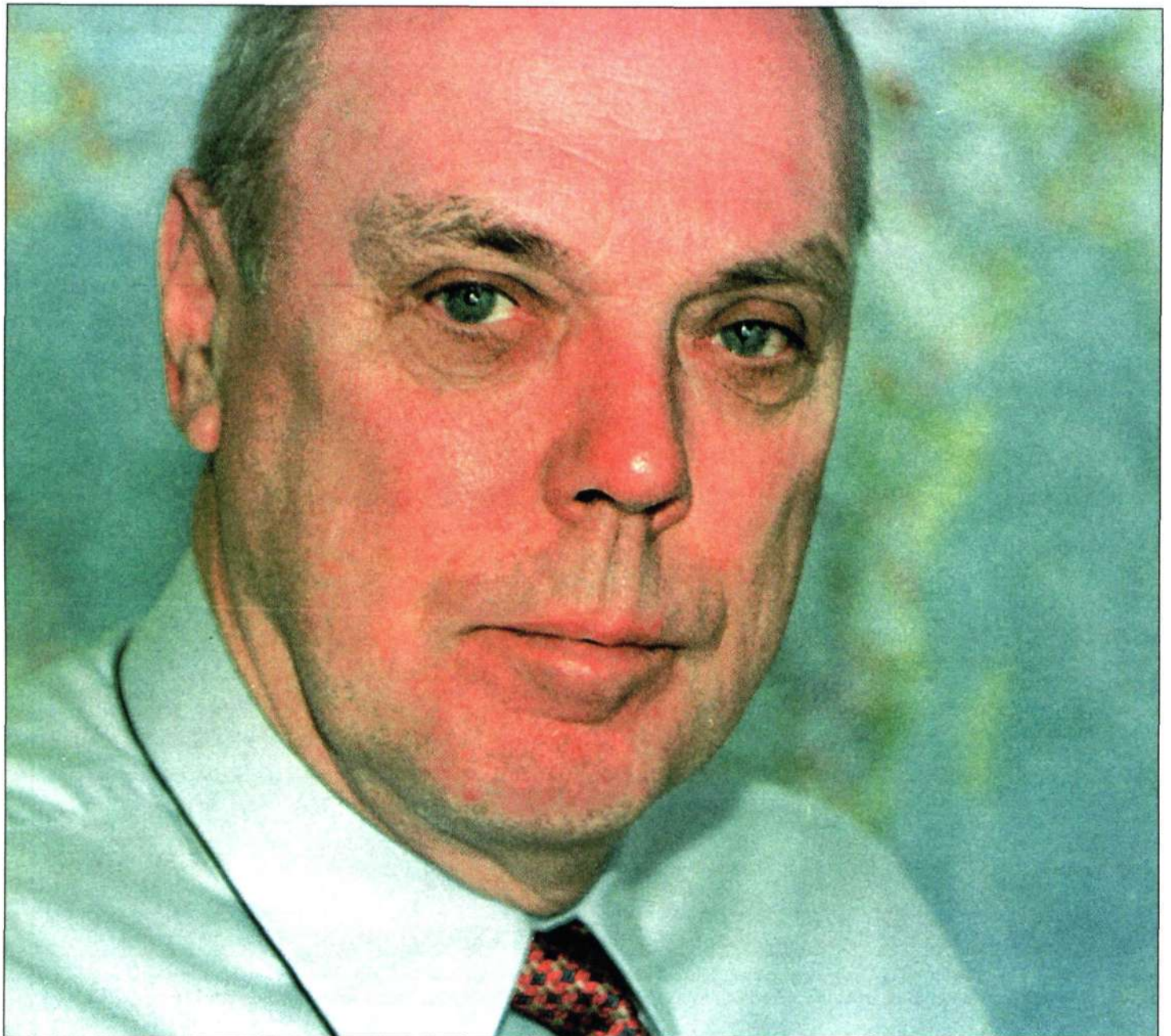
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Roland Sjöö: time still on his side



Slightly more than 300 days left until the millennium shift. Roland Sjöö is responsible for ensuring that Ericsson systems and products are Y2K-compatible. Several task forces have been detailed to customers and internally at various companies and units to oversee testing. Contingency plans must be established to cover the possibility of something going wrong on New Year's Eve, despite all precautions.

With only 300 days left until the millennium shift, Roland Sjöö has no time to lose. By June, all testing of the Y2K-compliance of Ericsson products and systems must be complete. It will soon be decided which employees must be on duty during the transition to the new millennium.

"I don't believe in any catastrophe theories about the millennium shift. However, it would be catastrophic for Ericsson if we didn't ensure the Y2K-compliance of all our products and systems, both within the company and installed on customer premises," says Roland Sjöö, Ericsson's Millennium Controller.

Along with thirty others at the Millennium Program Office, he has the job of supporting Y2K operations and ensuring that the work is carried out fully by all units and at all companies. Altogether, millennium operations involve a thousand people. Customer agreements have been signed and all Ericsson employees are affected by the operations.

Top priority

You could say that time is working both for and against us. The millennium shift feels increasingly real and necessary; at the same time,

there is very little time left. And, as we all know, time is not negotiable.

Corporate management has assigned millennium-compliance operations top priority. Most Ericsson products may be affected by the millennium problem, since they tend to be interlinked with various other products and systems.

"We are responsible for everything we have delivered, including third-party products. To minimize any possible Y2K consequences, we are planning for the worst and hoping for the best. Our goal is to ensure that business continues as if nothing has happened. If, against all odds, something doesn't work after the New Year, we must have a plan to deal with that, too," says Roland Sjöö.

By the end of March, all Ericsson units should have their personnel plans ready, to be able to tell employees how they will be affected in December and January – in particular, if and when they may take holidays.

"By the last day of June, we must have completed all measures we can reasonably be expected to take to prepare systems and products for the millennium shift. Also, by that time, all units and companies must present contingency plans for the possibility of something not working after the New Year," explains Roland Sjöö.

Open about Y2K

To compare notes with other large companies, Ericsson is a member of several forums concerned with millennium issues.

"Companies are generally very open about this issue – for example, in terms of methodology, information dissemination and human-resources issues. In Sweden, we are a member of the "General group" for Y2K issues, which also includes ABB, Volvo, the National Postal Administration and Telia. Internationally, we are working closely with companies such as IBM, Hewlett-Packard, Sun, Oracle and Motorola. We also cooperate with several of our customers – Vodafone and Cable & Wireless, for example."

Ericsson has been working on millennium issues for several years.

Roland Sjöö, who took up duties as Millennium Controller in September 1998, summarizes his experience with the project in three words:

It has been a time of inspiration, perspiration and frustration.

"Inspiration, because the job has been so stimulating; perspiration because there's so much to do; and frustration, from the struggle to secure resources. The reorganization obliged us to find new key personnel and ensure that we have access to all of the resources we require to adequately prepare for the millennium shift," says Roland Sjöö.

"The entire Millennium Office will be working on New Year's Eve, which for us will last 24 hours. We are building an early-warning system, to receive the first signals from New Zealand, the Tonga Islands and other locations that enter the new millennium first," says Roland Sjöö.

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New system solutions speed up AXE delivery

Ericsson is now introducing a new way of packaging the AXE system solutions that enables the customer to have a complete AXE station installed and tested 24 days after ordering it. This cuts delivery time in more than half.

"This is a breakthrough for standardized AXE products. This standardized system solution offers considerable advantages to the customer, who can now have the equipment delivered and installed very quickly, says Sture Nilsson, manager of the improvement project for the new AXE.

The packaging of systems solutions for the new generation of AXE hardware (BYB 501) offers major advantages for the customer, who is able to quickly become established in a new market. Furthermore, standardized systems solutions cut Ericsson's implementation costs by half.

"The concept is an important part of the improved TTC flow – Time To Customer. The TTC 24 solution is aimed primarily at new global operators and enables the customer to have a complete solution installed within 24 hours after the order has been received," says Sture Nilsson.

The CeBIT trade fair in Hannover in March will mark the start of an internal and external launch of the new packaging concept.

Rapid spread of technology

The new AXE packaging is part of the huge technological shift currently revolutionizing the manufacture of fixed switches. AXE stations can increasingly be assembled and completed in the plant. At the same time, the equipment is becoming considerably smaller. Today, a complete AXE station can be delivered in 14 cabinets. With the new BYB 501 hardware, seven cabinets are sufficient.

"However, Ericsson's smallest systems solution, AXE SMALL, is currently sold in three cabinets, which can be assembled and tested prior to delivery. For the next gen-

eration of AXE, in the year 2001, we expect one cabinet will be enough. Moreover, manufacturing costs will be less than a half what they are today," Sture Nilsson points out.

The method of packaging AXE affects the entire supply chain. Substantial savings can be made in project management and order handling as well as installation and testing. In only one and a half years, TTC flow for an AXE station has been reduced from 120 to 24 days.

"The standardized system solutions will involve major changes in our routines and ways of working. Currently, various pilot projects are under way to determine how our work will be affected," says Santanu Ganguly, project manager for the introduction of the new work routines in the Europe, Middle East and Africa market area.

Coordinated logistics

Logistics for AXE deliveries are currently handled by ten Customer Configuration Centers that serve as links between product units and market units. The operations are now being reorganized, which will result in logistics being coordinated and steered from three units in Australia, Mexico and Sweden.

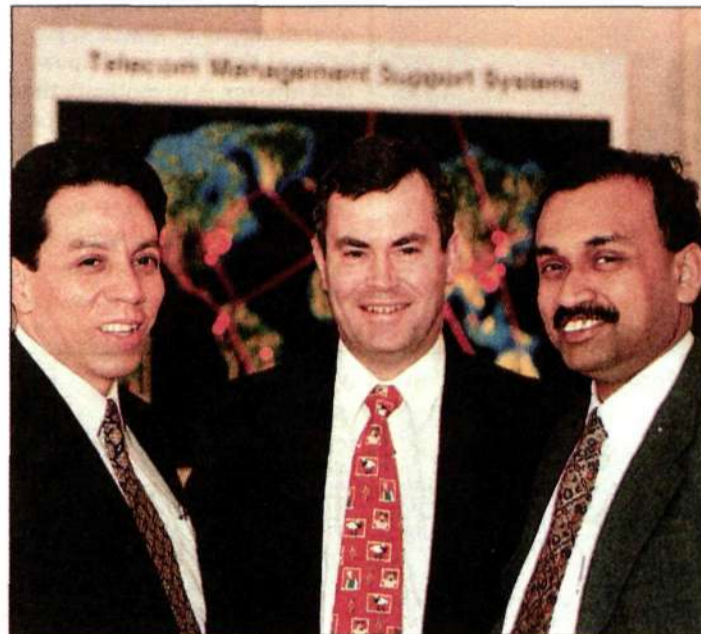
"We have been reviewing logistics flows and work routines for several years. The new packaging method for AXE is only one part of the global product-supply chain, which we are continually developing," says Torbjörn Lundmark, in charge of Customer Configuration Centers for wireline systems.

The number of Resource Centers – the units that carry out the actual installations and testing – is also being reduced.

"More central planning and coordination increases efficiency. Employees will remain in the regions and, as we can now see, the new work routines will enable us to offer new services," says Jan Kleist, manager of Resource Centers for Wireline Systems.

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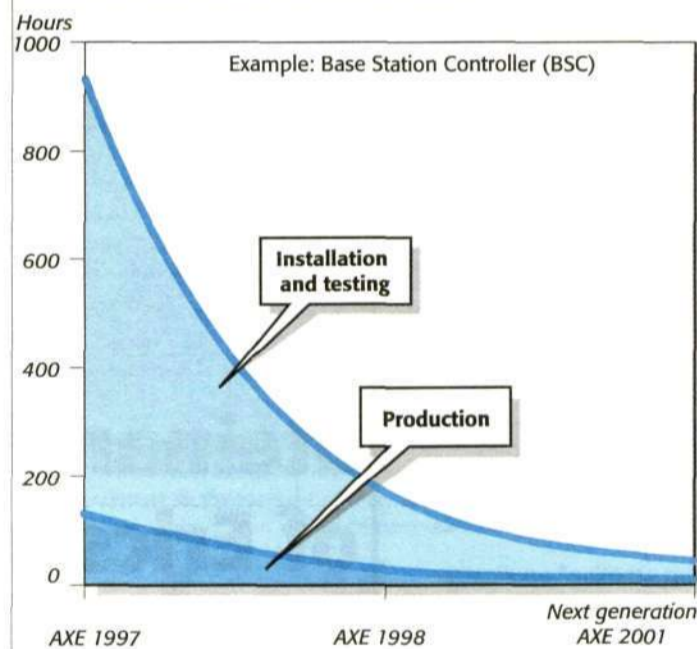


Ericsson is introducing standardized AXE systems solutions, bringing about a dramatic reduction in lead times and the need for new work procedures and routines in the supply chain. José Germán Escobar Pantoja from Mexico, Richard Allen from Australia and Santanu Ganguly from Sweden will oversee the introduction of the new routines. The objective is to ensure that an AXE station can be installed and ready for operation within 24 hours, anywhere in the world.

Photo: Lars Åström/Världsbilden

TECHNOLOGY CHANGES GENERATE DEVELOPMENT

Technological development means a dramatic reduction in the time needed for production, installation and testing.



Spare parts hub in the Netherlands

Ericsson is restructuring the administration of AXE repairs and spare parts. Repairs are being outsourced to a Spanish subcontractor. The company in the Netherlands is being assigned a central role as logistics center for the Europe, Africa and the Middle East market area.

Ericsson in Rijen in southern Holland is being assigned to manage the supply of spare parts in the regions. This mostly involves printed circuits that must be replaced. Previously, this was the responsibility of the local companies or the Stockholm unit. The repair operations of

the local companies are being transferred to the subcontractor GMS (Global Manufacturers Services), in Spain. Ericsson in Rijen has gradually begun to take over the companies' spare parts logistics and distribution operations.

The customers are the driving force behind the creation of a new infrastructure for hardware services.

New operators have new requirements and Ericsson's traditional customers are following this trend.

A common demand from today's customers is that Ericsson should take full responsibility for the supply of spare parts, which includes maintaining stocks. There is a very

obvious demand for faster and cheaper spare parts deliveries.

"We cannot meet the lead time demands being placed on us today by the operators without rationalizing and utilizing partners," says Göran Kördel, responsible for Hardware Service within the Network Operators and Service Providers business segment. "We can now fulfil Telia's requirement of replacement within 24 hours, whereas previously a delivery time of around ten days was common. We are seeing such trends everywhere now. We need to be able to create an infrastructure within a short period of time."

Similar functions will be established for the other market areas.

For Ericsson's local market units, this primarily means that they will no longer be devoted to the repair and physical handling of spare parts.

In the long term, regional logistics centers will take over all spare parts logistics and distribution services from the companies. Close cooperation will be established with the customer support functions at the companies.

One consequence of centralization is that fewer employees are required within repair operations and distribution of spare parts worldwide.

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IN BRIEF

Ericsson leading the pack

► In 1998, Ericsson issued 110 press releases with the potential to affect share price. That is the highest showing in the Stockholm Stock Exchange (SSE), according to an SSE study. Last year, 29 listed companies failed to issue any press releases of significance for the stock market. Ericsson issued a total of 300 press releases during the year.

Internet overtakes voice

► Internet use is growing by 1,000 percent per year, voice traffic by 10 percent. As early as next year, Internet traffic will overtake voice traffic in the telecom networks – measured in amount of data transmitted – that is, bytes. This forecast is made in a report issued by the Data-monitor analysis company.

Product of the Year: Phone Doubler

► Two U.S. trade magazines have selected the Ericsson Phone Doubler, Quick Call, as the most influential product of its kind for 1998. Internet Telephony and CTT are the two magazines that chose the product for the categories "Web-Enabled Call Center Solutions," and "Call Center, Internet Telephony," respectively.

Phone Doubler allows the user to receive telephone calls while connected to the Internet.

Rapid expansion in Japan

► An expansion order worth SEK 425 million (USD 53 million) was signed recently. The order concerns expansion pertaining to the Japanese Digital Phone Group's PDC network.

Today, the PDC networks are growing rapidly. Every month, 800,000 new subscribers connect to a PDC network, which is the Japanese equivalent to GSM and TDMA. There are currently slightly less than 40 million subscribers using this standard.

New managers with vital functions

► Within the Europe, Middle East and Africa market area, the customer-account managers for the largest customers – the "Global Account Executives" – have now been appointed.

For BT, the Global Account Executive is Bo Hjalmarsson; for Deutsche Telekom, Wolfram Seyring; for France Telecom, Gérard Morin; for Media One, Antonio Cassese; for Telecom Italia Wireline, Cesare Avenia; and for Telecom Italia Mobile, Massimo Gentili. For Telefónica, Eduardo Herranz; for Airtouch, Harri Kopponen and for Vodafone, Kaj Snellman.

Global Account Executives will also be appointed for Cable & Wireless and Telia.

Microexpansion in UAE

► An extension order for microcells, valued at SEK 515 million (USD 65 million), has been signed with Ericsson-customer Etisalat. The order concerns the reinforcement of networks in Dubai and Al Ain.

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ERICSSON 

New IT boss wants people to dare more

Håkan Liedman assumes responsibility for Ericsson's IT operations, as of March 1. He believes that his most important mission is to motivate the organization to more efficiently use the IT tools in which the company has invested. He also wants to introduce a more business-like way of working among Ericsson's IT personnel.

"Everything we do should be good for Ericsson's business. We IT people have to stop talking technology. It is wrong to always cling to certain systems whether it be SAP R/3, Oracle or anything else. It is better to say that we need support for a new order, for example. The matter of which system is best should play a secondary role," says Håkan Liedman.



Håkan Liedman

Taking over from Skoglund

Håkan Liedman succeeds Rolf Skoglund as Corporate Information Officer or CIO. He does not have a background in IT, but he has a good deal of expertise regarding Ericsson's IT processes from a global perspective. His previous post was within the Consumer Products business segment, where he was responsible for projects to improve delivery precision, shorten lead times for customers and to improve general work procedures globally.

On Monday, he introduced himself and described his new role to a

wider audience. At an international IT forum in front of three hundred Ericsson representatives, who are in various ways engaged in Ericsson's IT development, processes and transactions. One clear message was that Ericsson's IT organization will become more centralized and that Ericsson must quickly begin work on common processes and standardized systems as business support. Much of the two-day forum was about consolidating the work procedure.

Confidence

"A lot of effort has been devoted to in discussing why we should invest in IT and what needs to be done. Now, the organization is entering a new phase – now we can start to work. I believe the most important task is encouraging people to have the confidence to start using the systems we have already invested in."

Håkan Liedman believes that success breeds success. By showing the improvements that occur, use of this technology will rapidly increase. Ericsson must also become more efficient in its use of IT, he points out. Managers must become better at buying IT services instead of creating their own IT departments. If they do this, they will be able to concentrate fully on their core task: doing business.

Håkan Liedman also understands that communications regarding IT must become clearer.

Important to clarify

"General principles often become unclear. An area comprising processes, business strategies and IT technology is complex and is easily regarded as being confused. This

creates dissatisfaction and that is why it is important to clarify what we are doing."

Håkan Liedman believes in Service Management, a model based on a clearer division of roles and responsibility within IT operations. In many sections of the organization there has, for example, been a lack of clarity in the guidelines of various agreements that have been reached. Such ambiguity easily results in dissatisfaction.

"We have to become more skilled at defining what we require from the services we buy and at specifying what is being procured."

IT important for company

When the new company organization was presented, many people wondered about the new status of IT operations. From being an independent function with a management position in executive management, the unit is now part of the Product Supply and IT function, led by Björn Boström. This might give the impression that IT is no longer something prioritized by Ericsson.

"IT is assigned the highest degree of importance. It is an integral part of everything Ericsson does. Everyone must work with IT. I see Sven-Christer Nilsson as our highest IT manager, in the same way as he is our highest business manager. The company's IT operations are responsible for the implementation of the change, getting Ericsson to begin to use the system, so that it gives Ericsson added value."

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Steinar Tveit new president of Ericsson Sweden

Steinar Tveit, president of Ericsson in Norway, has been appointed new president of Ericsson Sweden AB, succeeding Ingemar Nilsson. He will take up his post on April 1.

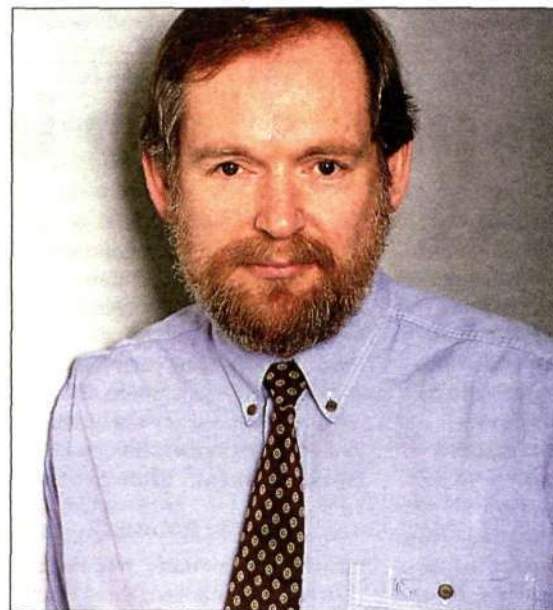
Until then, Bo Wall serves as acting president.

Steinar Tveit, age 49, serves as a qualified engineer, with a degree from the Norwegian Technical University. He has been president of Ericsson Norway since 1992.

Between 1975 and 1983, he was employed by Televerket of Norway, working on data services such as Datex and Datapak.

As part of his work, Tveit had close contact with the Swedish company Ellemtel and, as a result, he lived in Sweden from 1977 to 1979.

In 1983, he became operations manager for datacommunications and data network products at Elektrisk Bureau (EB).



Steinar Tveit: Swapping Norway for Sweden.

When Ericsson Norway was formed in 1989, Steinar Tveit was appointed technical director, and then president in 1992.

At the time of writing, it was not known who is to become new president of Ericsson Norway.

Self-repairing fibers

Ericsson is launching a new technology that improves operating reliability in fiber-optic networks. The solution, "FlexingBus," is based on self-repairing optic WDM rings capable of transmitting even if the fiber cable is severed.



A fiber-optic network can now repair itself if it is severed. This technology is called FlexingBus.

The patented technology has attracted much attention since its recent introduction at customer seminars at various locations around the world.

It provides a unique security solution for telecom operators using fiber-optic networks to handle the rapidly increasing load of data traffic.

"By building the networks in ring form, FlexingBus can maintain communications even if the fiber-optic cable is cut at some point. Data information will automatically

turn back at the breakage point, reaching the target via the backdoor, with a delay of less than 20 milliseconds," says Ulf Silvergran, product development manager for Ericsson's WDM solutions (Wavelength Division Multiplexing).

Enormous potential

WDM technology creates a large number of channels in one and the same fiber-optic cable by using various light wavelengths. This creates enormous potential for operators, as it enables them to transport close to one million calls in a single, microscopic fiber-optic cable, simultaneously.

Apart from increased bandwidth, the Ericsson WDM-based ERION

product family also offers optic network security.

In this family, FlexingBus is the latest solution enabling operators to protect their connections cost-effectively.

Chosen by major operators

ERION can be used in combination with modern transport network systems such as PDH and SDH, as well as with rapidly growing new technologies such as ATM and IP.

Major European operators that have chosen Ericsson's WDM system include Telefónica in Spain, BT in the UK and Sonera in Finland.

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HELLO THERE



"I want to inform others about the situation at Ericsson. About what our civil engineers feel and think," says Birgitta Albertsson, who is a member of the Ministry of Industry and Commerce's economic development group.

Photo: Peter Nordahl

Birgitta Albertsson

Birgitta Albertsson is the chairperson of the Civil Engineers' Association (CF) at Ericsson Business Networks in Nacka Strand outside Stockholm. She's also a board member of the Swedish Graduates' Union (SACO) and represents all 26 of SACO's associations on the economic development group established by the Swedish Minister of Industry and Commerce, Björn Rosengren.

► What's your vision of how economic growth in Sweden can be stimulated?

"Sweden tops the tax league. This can not only be seen in the salaries people receive, but also in the taxes and fees that companies have to pay. It's no wonder that capital is flowing out of the country. We need to start steering Sweden towards greater harmonization with our most important competitor nations, but without taking overly drastic redistribution policy measures. Doing so will bring rapid results."

► Birgitta Albertsson was in charge of Ericsson's telephone labs in Bollmora when Ericsson had operations there. More recently, her union work has taken the upper hand. Among other things, she is known for having negotiated central salary agreements three times.

"The fact that I work at a high technology company and that I'm a woman are other reasons why I was chosen to be on the economic development group."

► You've worked in Mexico, the Netherlands and Finland, and made several long trips to the U.S. How has that affected you?

"One gains a different perspective on Swedish society when viewing it from abroad. It's easier to understand what needs to be done in order for Sweden to experience growth again. We need to get away from that mindset where we jealously eye our neighbors and want to have just as much or, preferably, a little more."

"I believe that we need to abandon the idea of absolute equality. What's important is that we unite around a common agenda for growth and development. That will benefit us all in the end."

The economic development group has met twice so far. They have until the middle of March to put a common declaration together, so they will have to work quickly.

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Italians love to communicate, and not only at the market. Soon, they will be able to connect to the Internet without having to pay subscription fee.

Photo: Alex Farnsworth/Pressens Bild

Internet soon free for Italians

Soon, Italians will be able to access the Internet without any subscription fees, including ISDN connections. Tiscali, small-sized challenger in fixed-wire telephony, is now launching its Tiscali Freenet. The service is offered on the company's proprietary digital network, which uses Ericsson's AXE technology.

With 57 million Italians who love to communicate, the Italian telecom market has enormous potential. As proof, Italy is home to the world's largest GSM operator, TIM (Telecom Italia Mobile), with 10 million subscribers. In total, the number of mobile phones in Italy is double that figure. However, the political bribery scandals that plagued the country in the early

nineties put liberalization in the telecom industry on hold until relatively recently. Consequently, the situation is still fairly turbulent.

For example: a battle is being waged over the shares of the enormous Telecom Italia company, the former state telecom operator that was privatized in 1997. As late as last autumn, the first competitor in nationwide fixed-wire telephony, Infostrada, appeared on the scene. Olivetti recently made a bid for Telecom Italia.

Six companies licensed

To date, six companies have been licensed to conduct fixed-wire telephony in Italy and one of the most interesting of them is the small Tiscali company, from the island of Sardinia west of Italy. With a long tradition of self-reliance and resis-

tance to Rome, Sardinia's "big brother," it is not surprising that a lone entrepreneur on the island could launch a small telecom company by himself.

Starting in 1997, Tiscali's strategy was to build a nationwide network quickly, and its telephone service was under way in the largest city on the island, Cagliari, by March, 1998. Shortly thereafter, lines were operating in Rome and Milan as well, and the company is now preparing to offer free Internet access soon.

To offer such service, it was essential that the company preside over a proprietary network. Tiscali's network is based on 24 AXE stations linked at 2 Mbps, monitored by Ericsson's XMATE software. To reach the homes of the Italian subscribers, Tiscali has an

agreement with Telecom Italia, entitling Tiscali to two thirds of the call revenue.

This provides sufficient funds to make the project of offering free Internet feasible, also for those with an ISDN connection.

Package deals

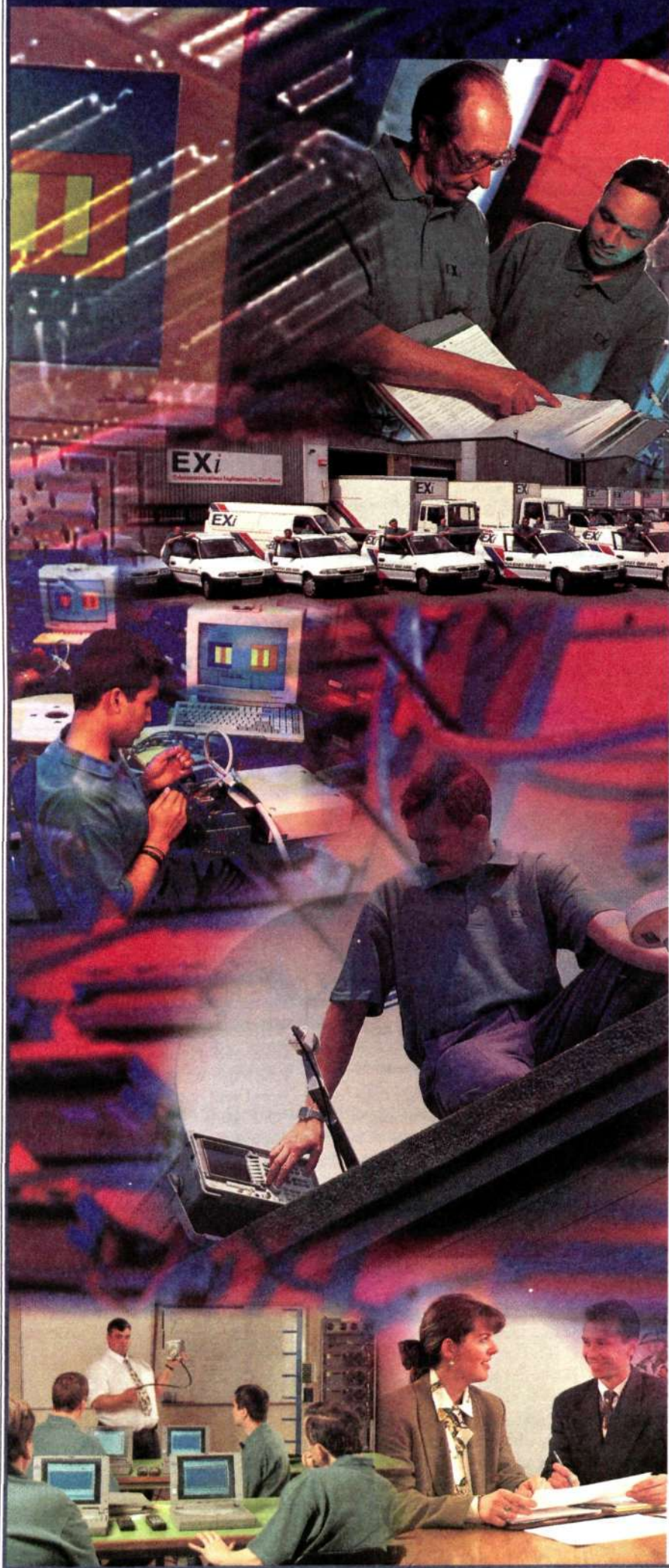
The "subscription" also includes an e-mail address, three megabytes for a web site and customer service.

The service will start soon in Rome, Milan and Cagliari. In June, it will extend to cover the entire country. Then, anyone traveling in Italy who needs access to a modem pool can obtain it by registering with Tiscali Freenet's web service.

Mats Lewan

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Consumer Products segment reorganized

As of March 1st, the Consumer Products business segment has a new organizational structure. The segment will adopt the same kind of structure as the rest of the organization.

"We have grown very rapidly and are now ready to divide up into business and product units," says Johan Siberg, Executive Vice President, business segment Consumer Products.

"We live in a rapidly changing world and will continually need to make organizational adjustments."

"Consumer Products has, during the past five years, experienced a 30-fold growth in volume, a ten-fold growth in invoicing and a five-fold increase in personnel. That means the organization never remains static."

"But," says Johan Siberg, "reorganization is not something that happens by magic. The important thing is to always know what we want to achieve by reorganization."

Like the overall reorganization of

the company, the realignment of the Consumer Products segment involves a decentralized organization with clear areas of responsibility and increased customer focus. Four business unit managers will each develop and maintain products within their areas of responsibility.

Mats Lindoff will manage the Mobile Phones GSM business unit from Lund. Sandeep Chennakeshu will oversee products for American Standard Phones from Research Triangle Park, North Carolina, in the U.S.

Lennart Detlefsen will be responsible for consumer products for Japanese standards, satellite telephones and data terminals, with headquarters in Kista. The fourth business unit, to be managed by Björn Krylander, is Home Communications. That unit will be responsible for Ericsson's DECT telephones for the private market, among other things.

Coordination of technology developments will take place through a special research and technology unit under the direction of Nils Rydbeck.

Its purpose is to provide better coordination of the technological development of the various standards and units.

Six product units

There are two strategic product units within the research and technology unit – Bluetooth and UMTS. Both will work together with all of the business units within the segment.

The four other product units – global customer services, accessories, modules and communicators – will also operate across business unit lines. Modules could, for example, be simplified mobile telephones installed in machines, while communicators are intelligent mobile terminals, such as the Symbian operating system.

Three market regions

In addition to internal support units within, say, marketing and communication, the business segment also operates in three market regions around the world. These are intended to strengthen Ericsson brand

name recognition and operate as a sales organization. Market offices for the three areas – Europe, Asia and the Pacific, and North and South America – will work closely with the company's major market units described earlier.

"This new organization allows us to highlight important areas, such as Bluetooth and third generation mobile telephony, by making them separate units," says Johan Siberg.

Simultaneous introduction

The new organization will also enable the rapid distribution of large volumes of new telephones. It is no longer feasible to launch a telephone into a single market. The GSM standard requires, for example, a more or less simultaneous introduction in 60 different countries.

A total of approximately 14,000 people are employed in the Consumer Products business segment.

Nils Sundström

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<http://www-rmot.ericsson.se>

New head of Infotech appointed

Lena Larsson has been appointed President of Ericsson Infotech AB in Karlstad, Sweden.

Lena Larsson, age 42, started at Ericsson Infotech in 1994 and, as a department manager, she has been a member of company management team since 1995.

"It's great that the company chose to recruit a new president internally," she says.

"We see it as proof that Ericsson relies on us and that we have the ability to produce well-qualified managers of our own," adds her predecessor as President, Stig Sjögren, who now moves on to an executive position within Ericsson in the U.S.



Lena Larsson

Women's Day

Lena takes up her position as president on March 8. The fact that March 8 is International Women's Day is, however, a mere coincidence.

"It's because that's the day I return from my winter sports holiday with the family – my husband and two children, who are eight and thirteen years old," she explains.

She wants to tone down the fact that she is the third woman to be appointed president within Ericsson.

"Of course, that is fun, and it also means an extra challenge – but I assume that I was chosen for my abilities, not because I am a woman," she states.

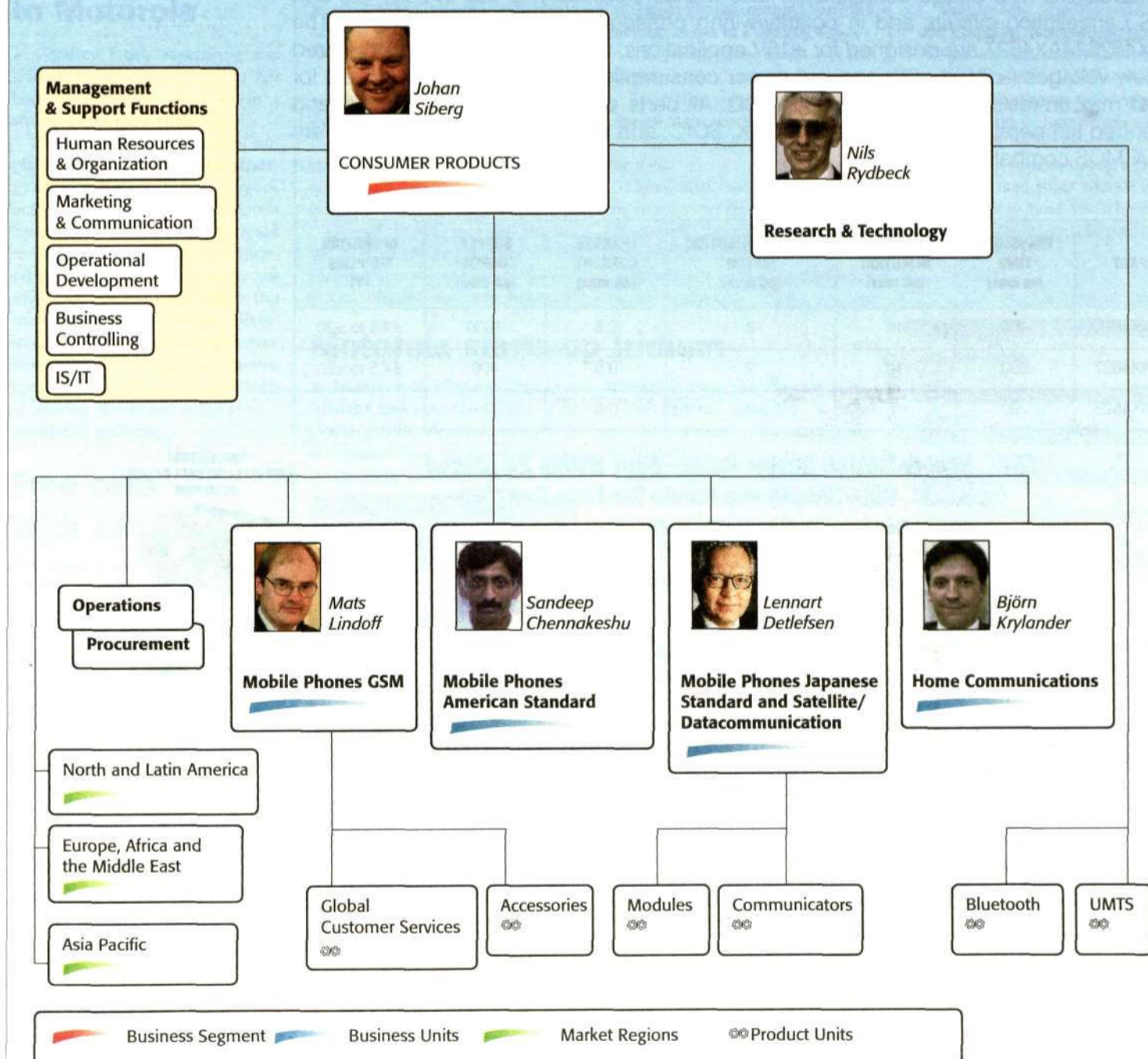
Strengthened by Ruter Dam

Last year, Lena Larsson participated in the Ruter Dam program. Ruter Dam (Queen of Diamonds) is a foundation which, using its management development program, is committed to helping more women reach higher levels in major companies.

Ericsson Infotech is a product and development company located in Karlstad, Sweden. It has slightly more than 550 employees. The company has product and development responsibility within a series of areas, including signal systems and protocol converters, APZ emulators and simulators, mobile Internet solutions, radio network products and production support systems. Ericsson Infotech also comprises the Ericsson Project Management Institute, which has the PROPS project control method as part of its area of responsibility.

Sven Carlsson

CONSUMER PRODUCTS



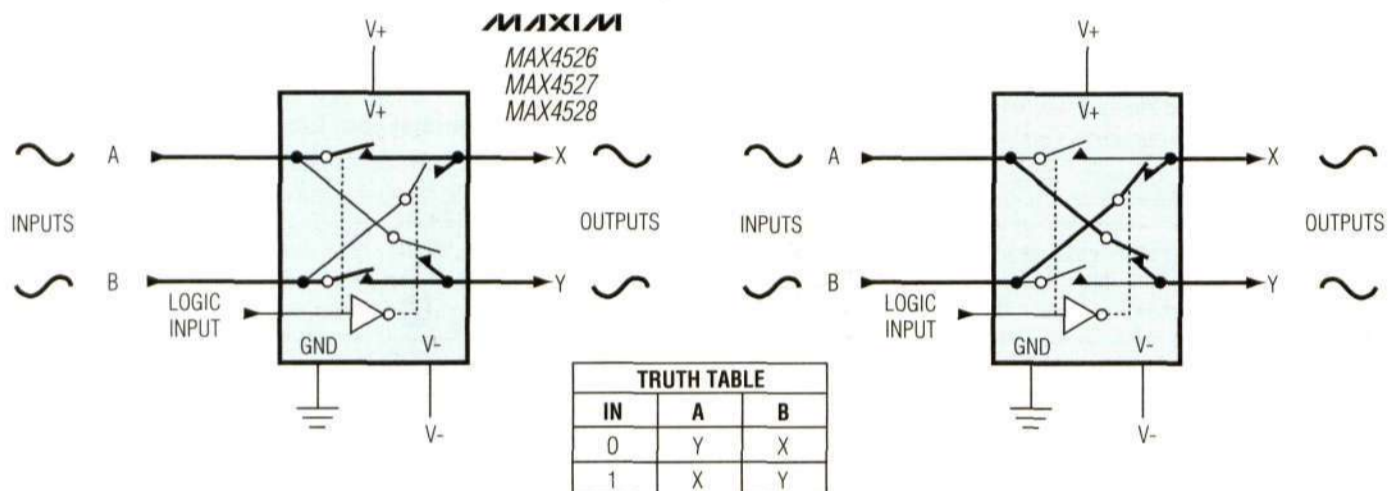
Ericsson presents news at CeBIT trade fair

Contact is first with Ericsson news. Look at Contact Online – Ericsson's news service on the web starting on March 18th.

You find Contact Online at Inside Ericsson:
<http://inside.ericsson.se>

INDUSTRY'S FIRST PHASE-REVERSAL SWITCHES AVAILABLE IN 8-PIN μ MAX PACKAGE

Four Matched SPST Switches Simplify Polarity/Wiring Phase-Reversal



The MAX4526/MAX4527/MAX4528 are phase-reversal analog switches consisting of two normally open and two normally closed CMOS switches arranged in a bridge configuration. These parts are designed to have matched t_{ON}/t_{OFF} times and charge injection (2pC max). They're ideal for use in lock-in amplifiers and synchronous demodulators. The bridge configuration also makes them easy to use in Auto Cal and VOS cancellation circuits and in polarity/wiring phase-reversal type applications. The MAX4526/MAX4527 are designed for $\pm 15V$ applications, while the MAX4528 is optimized for low voltages ($\pm 2V$ to $\pm 6V$) and low power consumption. Each switch is designed for 175Ω max on-resistance and matched to 8Ω . All parts are available in commercial and extended temperature ranges in 8-pin μ MAX, SOIC, and DIP packages. Logic inputs are TTL/CMOS compatible.

PART	TRANSITION TIME (ns max)	CHARGE INJECTION (pC max)	CHARGE-INJECTION MATCH (pC max)	LEAKAGE CURRENT (nA max)	SUPPLY CURRENT (μ A max)	OPERATING SUPPLIES (V)
MAX4526	100	10	2	0.5	1000	± 4.5 to ± 20
MAX4527	200	10	2	0.5	400	± 4.5 to ± 20
MAX4528	200	5	2	0.5	1	± 2.7 to ± 6



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Nokia presents new media phone

Telecommunications company Nokia presented its new Nokia 7110 media phone at the opening of the GSM trade fair in Cannes. The phone is the world's first mobile phone based on WAP (Wireless Application Protocol), which is a global de facto standard for surfing the Internet using a mobile phone.

The new phone will have its market launch during the second quarter of this year.

"Until now, hearing has been the sense we have employed in our use of mobile phones. Now mobile phones will be products for which sight will be increasingly important," says Anssi Vanjoki, manager of Nokia Mobile Phones in Europe and Africa.

The new mobile phone has an 80 percent larger display than its predecessor, the 6110, but is smaller in all other respects. With the media phone, Nokia has launched a new concept which it calls Mobile Media

Mode (MMM) based on WAP. The concept provides direct access to the Internet and means that the user can read news, weather and other types of information direct from the mobile phone. In connection with today's presentation of the new Nokia phone, CNN launched a new news service, CNN Mobile, which the new phone supports.

"This means that you can read the news whenever and wherever you want. But, eventually, it will also be possible to listen to radio news via the mobile phone and next year it will be possible to watch video news by phone," says Mark Bernstein, manager of CNN Interactive.

Several operators have already decided to offer CNN Mobile to their customers. These include Sonera, New World Mobility, Sonofon, Smarttone and Telia.

"We already have a Swedish CNN service, DOF, which we offer our customers. We look upon this as the next step. With a WAP-based service, the news service will

become more interactive. For example, it will be easy to make travel bookings," says Lars Persson, Vice President of Telia.

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With the introduction of this WAP telephone, Nokia became the first company to launch a telephone adapted to Wireless Application Protocol technology (WAP).

INDUSTRY NEWS

Nike ad manager to Motorola

► Geoffrey Frost, advertising and trademark manager at Nike, has been recruited by Motorola to a strategic managerial post.

Frost will oversee the task of implementing Motorola's global strategy of focusing on consumer products. Earlier this year, Motorola launched an ad campaign designed to increase consumer market interest in the company's products. Just what Geoffrey Frost will add to this campaign remains to be seen. His selection was no accident, however. Nike sells the world's best-known sports clothes, thanks to huge efforts at making the brand familiar to a worldwide audience.

Free calls with ads

► Danish operator Sonofon is now offering free mobile phone calls. There is a price to pay, however. Conversations between the caller and the person being called are periodically interrupted by advertisements. GratisTel is the company behind this technology, already offering free fixed telephony in Sweden and Norway, using the same concept.

Nokia buys computer firm

► Nokia has purchased the American company InTalk, a privately held American firm which is developing a base station that will allow wireless transmission of e-mail and video in office environments. InTalk was founded in 1996. Nokia did not disclose the purchase price.

Olivetti wants to buy Telecom Italia

► The Italian IT company Olivetti is offering ITL 102,000 billion, or over SEK 470 billion, for Telecom Italia.

Olivetti's offer is raising eyebrows within the industry. Telecom Italia, the former telephone monopoly, is five times bigger than Olivetti. If the deal is successful, the new telecom giant will be the world's ninth largest.

Olivetti would partially finance the deal by selling its share of the mobile telecom company, Omnitel.

The offer has not been embraced

by Telecom Italia, meaning there is a substantial risk of a bidding war.

Who will have the final say in this matter remains unclear.

The Italian government owns 3.4 percent of the shares in the company and therefore has the power to veto the deal.

The relatively modest offer reflects the lower expectations being placed on former European monopolies. Competition is stiffening and the companies are facing challenges from new players.

Motorola starts up Iridium

► Iridium is shifting into high gear in order to hasten the launch of its global satellite telephone services. It is expected that there will be between three and four million sub-

scribers by the end of the year 2002.

International business travelers are the most important target group for Iridium.

The company is also expecting to attract many subscribers within the shipping and transport industries. It is anticipated that European subscribers will make up ten percent of the total.

The Iridium global communications system has been operational since November 1998. Delays and startup problems have undermined the system launch, however. Now, Motorola is launching the first handheld satellite telephones for Iridium – the Satellite Series 9500 Portable Phone and the 9501 Pager.

The Iridium system combines wireless land-based networks with low-orbit satellites, providing worldwide coverage.

Motorola is one of the main stakeholders in the investment company behind Iridium.

By the end of the year, Globalstar will be launching yet another satellite telephone system. Qualcomm and Loral Space are the main stakeholders.



The 66 Iridium satellites orbiting the earth make it possible to provide global mobile telephony coverage.

COLUMN



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Does size matter?

Since the earliest days of the industrial age, and probably even earlier, there has been a desire to make comparisons in the size of business operations. Factory owners often chose measurements such as the number of employees or the number of manufactured items per unit of time. Farmers compared the number of animals and amount of land. Eventually, comparisons came to be measured in terms of the monetary value of sales. American car manufacturers Ford and General Motors, have historically always been classified as large companies, based on the number of employees and units manufactured. But are they really that big in economic terms? And how do they compare to newer companies such as Microsoft, Intel and Yahoo? One economic measurement increasingly being used is a company's market value. Market value is based on a company's total stock market value plus its long term growth potential over three or four years. Based on those parameters, the comparison looks like this:

Company (Jan. 1999)	Market value (USD billions)	Employees
Ford	73	360,000
GM	57	640,000
Intel	211	63,000
Microsoft	390	27,000
Yahoo	30	500

The charts below provide comparative illustrations for key players in our industry. Note that both Siemens and Alcatel also have non-telecom operations. We see that all the companies display differing market value developments over the most recent years, from 1996 to 1999. The reasons for such differences in growth are due to such things as new product launches, successful transactions, partnership agreements and the ability of a company to project a positive future, to be future proof.

Restructuring is becoming an increasingly common phenomenon in the field, leading to changes in the size of workforces. At Nortel, almost 8,000 people have been affected, while Siemens is planning similar measures, and these are just a couple of examples. At the same time, new computer and Internet skills are required in this new telecom world.

Why does a company's value need to grow?

Investments, as well as acquisitions, become easier to finance. In terms of the numbers, one could say that Lucent's acquisition of Ascend for USD 20 billion was financed by just two months of market value growth during the autumn of 1998! So, of course the size of the market value is significant.

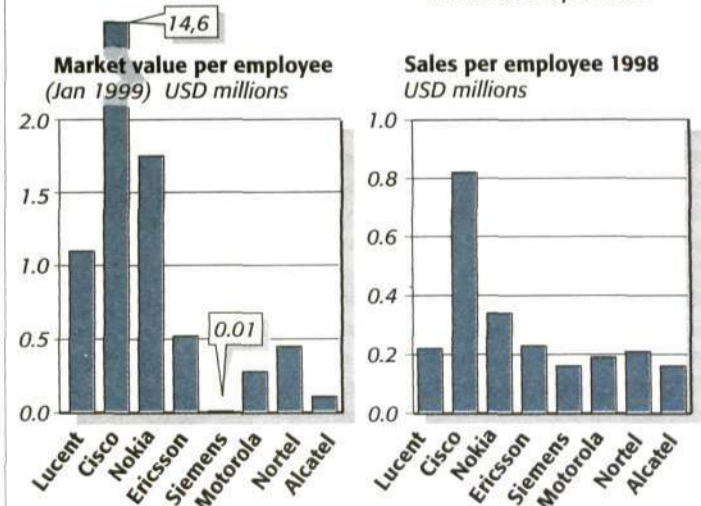
To find out more about which companies are big and which are small, which could be tomorrow's winners, potential new customers and more, look on the Web at <http://bic.ericsson.se>. If you make that address the start-up page on your computer's Web browser, we can promise that you will be well-informed about what is going on in the telecom industry. With this knowledge in hand, you'll be able to show your customers that we at Ericsson have the expertise to provide support in the next century as well.

Raitis Sedlenieks, senior analyst,
corporate marketing & strategic business development

MAJOR DIFFERENCES IN MARKET VALUE PER EMPLOYEE

Market value USD billions	Sales		Number of employees	
	Jan 1996	Jan 1999	1998	1998
Lucent	23	148	30	134,000
Cisco	23	161	9	11,000
Nokia	11	77	15	44,000
Ericsson	20	52	23	100,000
Siemens	30	41	67	416,000*
Motorola	30	42	29	150,000
Nortel	13	36	17	80,000
Alcatel	13	21	31	189,000*

* All areas of operation



Source: Ericsson Business Intelligence — Graphics: Mikael Parment

Note: Figures are approximate and converted to whole figures.

GSM World Congress in Cannes continues to grow. This year, 9,000 attendants showed up from 86 countries. The trade show has become a showcase for new products, this year being no exception.

Cannes brightens dark winter

Washable phones for workers

The new R 250 Pro Ericsson mobile phone is for people who need a robust, washable telephone – construction workers, manual workers and others who work or spend a lot of time outdoors.

“Manual workers, for example, often have to contend with a lot of dust. Market surveys have shown that 10 to 15 percent of the users would like this type of phone. That is a considerable market,” says product manager Patrik Nilsson, who demonstrated the new phone at the GSM trade show.

As the world's first washable phone, the R 250 Pro received much attention, for example by a Swiss TV-crew, which ran footage from the GSM show showing the telephone drenched in sand and water. The phone is a dual-band phone for use with GSM 900 and 1,800. It even supports the GSM Pro system, which means that with the insertion of a GSM Pro SIM card, the phone can be used as a Privat Mobile Radio. The phone is shock-resistant and is not sensitive to dust or sand. It has several special features, including a small speed-dial button on the side, making it easy to use even for someone wearing thick gloves.

Perfect for adventurers

“This is also the perfect phone for adventure sports. Skiers, kayakers and mountaineers need robust telephones, not necessarily the smallest phone available,” says Patrik Nilsson.

The phone is made of materials that are completely new in the mobile-phone industry, such as Gore-Tex, rubber and magnesium. Designing a telephone that would be light and not damageable by water was a demanding task for the developers of the phone.

“Developing this phone was not easy. We were working with materials that were completely new to us and that has presented quite a challenge,” says Asier Ugarte Askasibar, assistant project manager at Ericsson in Bilbao, where the telephone was developed and will also be produced.



Asier Ugarte Askasibar

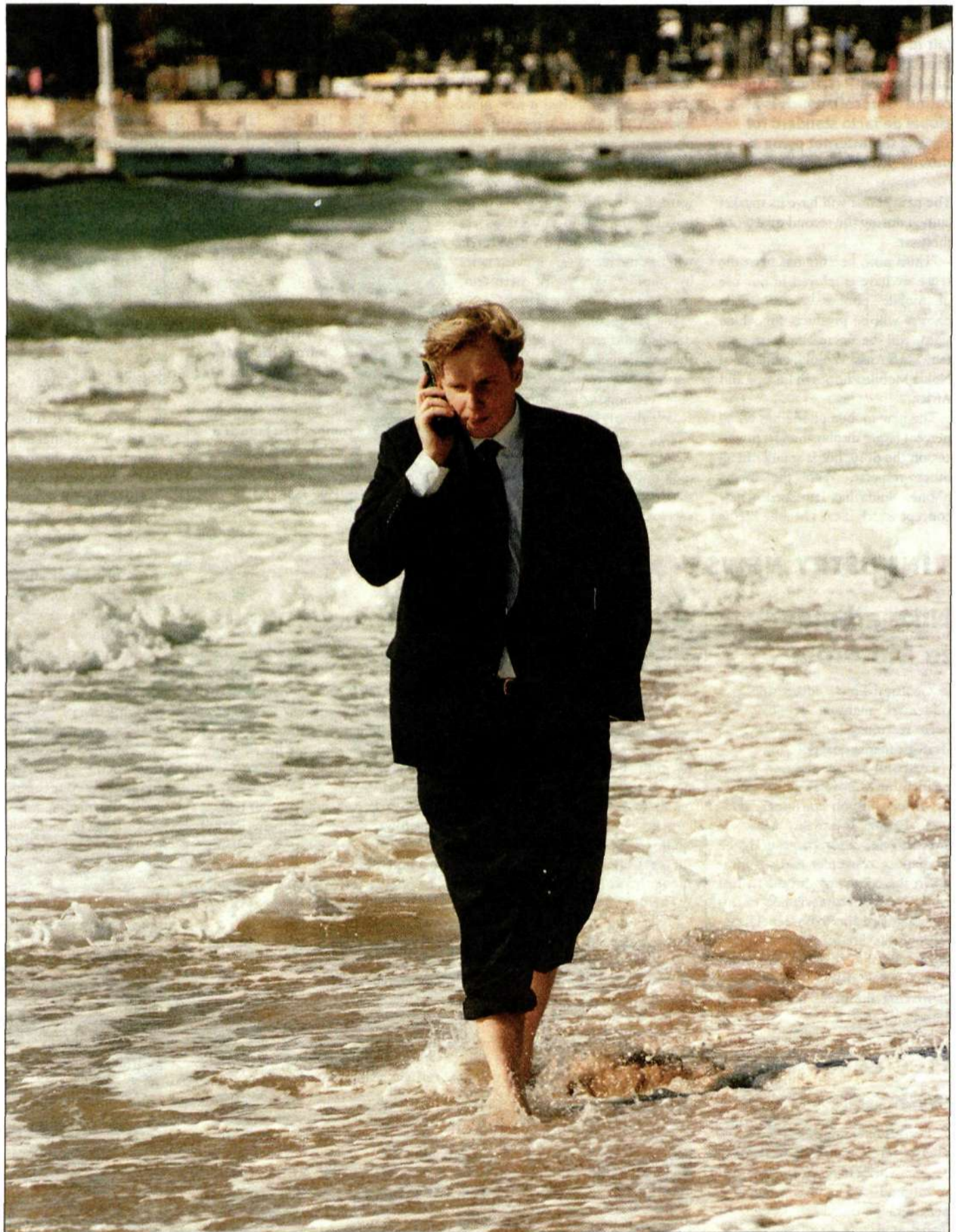
“We developed the telephone in close cooperation with the people in charge of industrializing the product. That is one of our strengths in Bilbao – that development and production are carried out at the same place,” explains Asier Ugarte Askasibar.

Segmentation of the market

The introduction of the R 250 Pro, scheduled for the third quarter of this year, will provide a clear demonstration of the segmentation of the mobile-phone market that Ericsson has been talking about for some time. New phones will increasingly target clearly defined customer segments with widely differing requirements and preferences.

“The trend to date has been towards increasingly small telephones. In the future, however, we will see many different models for different customer types,” says Jan Ahrenbring, marketing manager for the Consumer Products business segment.

Mia Widell Örnung
mia.widell@lme.ericsson.se



The beach is a perfect place for the R 250 Pro phone.

“It is intended primarily for manual workers, but also attracts young people,” says product manager Patrik Nilsson.

Photo: Lars Åström/Världsbilden



The robust GSM telephone with a Private Mobile Radio function attracted considerable attention at the trade show: TV teams and photographers were queuing up to see whether the phone could in fact withstand very rough handling as promised.

Base station the size of a briefcase

Poor indoor radio reception is a problem experienced by many mobile-phone users. This is the problem Ericsson is tackling in launching the new pico base station, the RBS 2401, a small base station intended to be deployed inside buildings.

The pico base station was first shown at the GSM World Congress and, when introduced at the end of June, will be the first of its type in the world.

"Today, we're seeing 20 percent of mobile calls being made indoors. Within five years, 25 percent of all calls will use indoor systems. A large proportion of these calls are made by business people, who demand excellent reception, reliability and quality. They don't want to have to stand with their faces pressed to the window when they use their mobile phones indoors," says Sven Hellström, product manager for micro base stations.

It's a small base station, and at 19 kilos is half the size of a micro base station. It takes only 20 minutes to install and is easy enough for one person to manage.

"The idea is that the pico base station can be installed anywhere without looking ugly and clumsy in the room. It's small enough to be mounted between a door frame and the ceiling, and light enough to be hung on a plaster wall without requiring any reinforcement," says Johan Andersson, product manager for the RBS 2401.

The RBS 2401 is intended to improve radio reception in public buildings such as shopping centers, airports and hotels in a simple and cost-effective manner. It is also intended for small and medium size companies that want to improve radio reception in the office. The pico base station is also engineered for advanced GSM services and high-speed data GPRS.

At first, the base station will mostly be used



With the introduction of the new indoor base stations which are now beginning to hit the market, GSM is seriously moving indoors. Ericsson will be first up with the pico base station, which is small and easy enough for one person to handle and install.

for today's GSM 900 and 1,800 MHz networks, but it will also be able to be used in the comprehensive new business communications solution, GSM on the Net, with Internet-based multimedia, fixed-wire and mobile telecommunication. All that's needed to enable the RBS 2410 to operate as a part of GSM on the Net is the addition of a small IP unit. In other words, to switch to GSM on the Net, there is no need for the customer to rebuild the radio network.

"The market is already interested in this

new radio base station. Soon – in April and May – we will conduct field tests using actual mobile networks," says Johan Andersson.

At the GSM trade fair, Nokia also exhibited a new indoor base station, Nokia InSite. Considerably smaller than Ericsson's pico base station, it is approximately the size of an A4 sheet of paper and weighs 2.4 kilos; however, the number of users it can handle and the area it can cover are smaller.

Moreover, it will not impact the market before the first half of the year 2000. Its power

unit is separate, not, as in the Ericsson radio base station, an integral part.

"The fact that our competitors are also introducing products in this area simply shows that we are not the only ones who are convinced that this is an important and growing market. Once the market for indoor base stations heats up, I think the RBS 2401 will stand out as the right product," says Johan Andersson.

Mia Widell Örnung

The future is now – really

Slogans often sound glib and unrealistic, but the highly visible slogan at Ericsson's stand – "The future is now" – was in fact based on reality. Where wireless data communications were the communications of the future at last year's Cannes trade fair, this year they're part of the present.

Two years ago at the Cannes fair, mobile data communications still seemed to belong to a certain but distant future. The area represented a potential for sharp-witted researchers at a few of the world's largest companies. The technology, much less the products, did not yet exist.

Last year's Cannes fair was characterized by future solutions in the data communications area. At the Ericsson stand, people queued to watch the only demonstration of the GPRS data package technology which at that time permitted transmission speeds of up to 115 Kbps for wireless communications. Only the Ericsson stand displayed complete hardware for third-generation mobile systems: the WCDMA WISE test system – Wireless Internet Solutions from Ericsson – launched at Cannes, and WAP – Wireless Application Protocol – a de facto standard initiated by Ericsson. WAP makes it possible to access Internet pages from a mobile phone. Last summer, just a few months after Cannes '98, Ericsson demonstrated the EDGE technology (Enhanced Data rates for GSM Evolution) permitting data transmission speeds up to 384 Kbps. This makes multimedia really possible.

Now to this year's Cannes trade fair: last year's future solutions are now reality, in Europe at least. Licenses for the third generation of mobile systems will soon be distributed in several countries, Finland among them. Ericsson has delivered several test systems. Ericsson has been awarded GPRS contracts, among others by German operator T-Mobile. Nokia landed

its breakthrough contract from the Finnish company Sonera on the first day of the fair. Ericsson also launched a small indoor base station that is fully primed to support GPRS.

"All suppliers are involved in the area. We're not alone in any way. We are ahead of the competition, although we'd better quicken our pace if we want to keep up the lead," says Per-Arne Sandström, new manager of the GSM unit of the Network Operators business segment.

"Data communications is such a huge area, and it's essential we find the niches and segments that suit us. It's important to concentrate. We won't be believed if we say we're going to be best in all types of data communications. We'll have to offer our products as packages and target specific operator segments," says Per-Arne Sandström.

Network capacity and data applications are being developed. Soon, only the products themselves will be missing. Important Ericsson initiatives in this area include WAR, EPOC and Bluetooth, all of which simplify data communication between terminals – such as mobile phones, computers, coke machines, etc. – in various ways. These are open standards, so they will help to push the market forward. WAP was in fact exhibited by several suppliers this year. Motorola held a live demonstration, including everything but the telephone, which was illustrated on a computer screen.

"This is a dilemma. Mobile communication cannot be fully realized until we have 'end-to-end' data communications. Without terminals



Per-Arne Sandström held his first official presentation as head of the GSM unit.

– notebooks and so on – it's not possible," says Per-Arne Sandström.

The question was also raised by a reporter at Ericsson's press conference: When will we see the terminals? Is it not high time, so that the mobile data communications market can get under way?

"It is our experience that consumers replace their phones very quickly once a new model arrives," says Jan Ahrenbring, marketing manager for mobile phones.

The first WAP telephone was in fact presented during the fair, when Nokia exhibited its new WAP-based media phone. However, more mobile phones are to come: Motorola has promised a similar model during the year, and Ericsson is also planning to introduce further models.

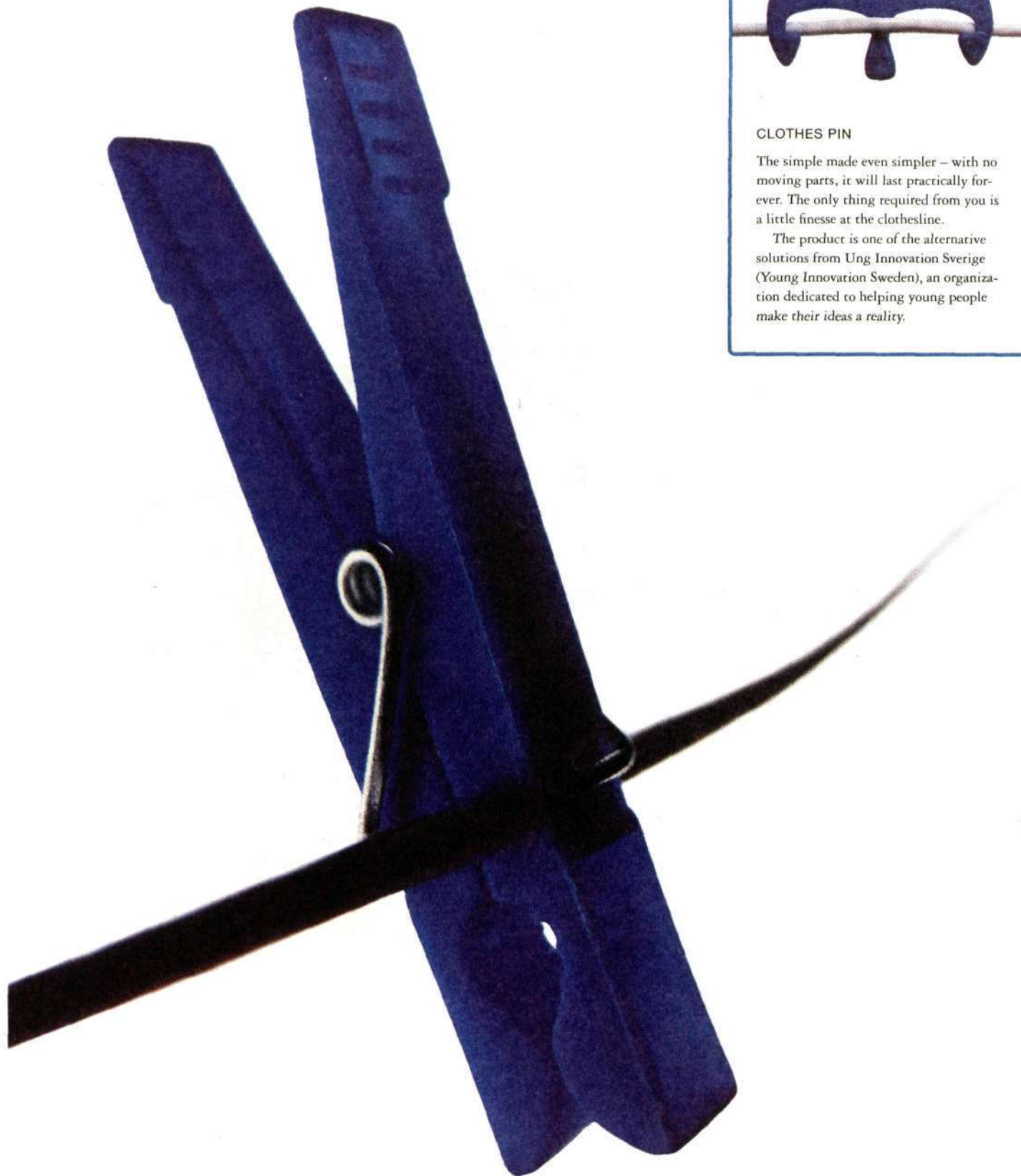
"We will have a WAP-phone out sometime

this year. A necessity now is for all large operators to prepare themselves for mobile datacom. Only then will mobile datacommunication become possible for the larger audience," says Jan Ahrenbring.

Mia Widell Örnung

VISITOR RECORD AT CANNES

A record-breaking crowd of 9,000 – 38 percent more than last year – attended the GSM trade fair, held for the thirteenth year in Cannes. Of these, 4,100 were delegates – also a 21 percent increase over last year. Eighty-six countries were represented – ten more than last year – of which almost 25 percent were from western Europe, 22 percent from eastern Europe and 19 percent from the Far East.



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Afterwards, the obvious may no longer be quite as obvious.

ERICSSON 

At the end of January, six months after the preliminary agreement was signed, the first call could be made from Retevisión's new GSM network - Spain's third such network.

Quick moves as Spain gets third network

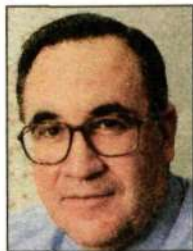


The new Spanish operator Retevisión has opened several stores in central locations. This is the store window at Puerto del Sol in Madrid. The commercial name of the network is Amena.

Photo: Patrik Lindén

The network was set up in record time and, by January 25, more than 500 base stations had been connected, with 100 being connected in the final three days before start-up. Every delayed base station would have cost Ericsson ESP 18 million (SEK 1 million) in penalties.

"We have received considerable help from several Ericsson companies. Many people have quite literally worked round the clock during the past few weeks," says José María Ibáñez, who has managed the day-to-day running of operations. Contact spoke to him three days after the network came into operation.



José María Ibáñez

In order to complete the project in time, installation engineers were brought in from the Philippines - twenty people who, less than two hours after their plane had landed, were up on the rooftops of Madrid connecting base stations.

Spain's third mobile network is operated by Retevisión, whose associates include Telecom Italia.

"Ericsson has well-established contacts with Telecom Italia, so we have received excellent help from our Italian colleagues. For a time, there were as many as 30 people from Ericsson in Italy working on the project in Madrid," José María Ibáñez explains.

In addition to the people from Ericsson in Italy and the Philippines, the companies in

Sweden, Norway, Denmark, the U.K. and Portugal have been helping out.

When José María Ibáñez was appointed to manage the project, there were only six people working on the new network.

"That was on August 12," José recalls. "A lot of people were still on holiday and the customer's own organization had not been arranged. It was hard to believe that we would be finished in time. Today there are 200 people from Ericsson in Spain and 160 drafted in working full-time on the project, plus many more part-time workers."

Now that the organization is established, the work has adopted a more organized form. Although the network is in operation and the customers have started to flow in, many base stations are still to be connected. Their number will swell to 3,000 before the end of December in the year 2000. The network must also be continuously fine-tuned as the pressure on it increases.

Up until now, Telefonica and Airtel have shared the Spanish mobile market. Telefonica has a 70 percent share, while Airtel has 30 percent. Retevisión's ambition is to gain 20 percent of a growing market prior to the end of the year 2000.

Supplying everyone

The mobile market is growing, not least because calls are becoming cheaper.

The cheapest call on a mobile phone now only costs ESP 2 per minute more than a local call via the fixed network. Approximately 17 percent of Spaniards own mobile phones.

Ericsson has a unique position in the Span-

ish market. In addition to supplying Retevisión in conjunction with Siemens, Ericsson also supplies the two other GSM networks.

"That perhaps seems a little strange, but the customer regarded it as an advantage that we had an organization that could manage this type of work," explains Luis Ramirez Vera, who is responsible for Ericsson's customer, Retevisión, in Madrid.

To facilitate work with all three mobile operators in Spain, Ericsson has established separate organizations for the various customers.

Ericsson often sells mobile systems nowadays, but it is not merely a question of supplying good equipment at a favorable price. Ericsson now carries out all the work involved in setting up a new network - from planning the radio cells to negotiating leases with the owners of properties where base stations are to be located.

"The bottleneck in the project has been trying to find enough suitable sites for base stations at such short notice," says José María Ibáñez.

Sometimes weeks have gone by without a single lease being signed and sometimes 40 base station agreements have been finalized in one week.

"Under these conditions, planning is rather difficult, particularly when it comes to the hiring of subcontractors," explains José María Ibáñez.



Luis Ramirez Vera

THE SPANISH MARKET

Ericsson has approximately 2,850 employees in Spain.

There are 3 mobile network operators: Telefonica, Airtel and Retevisión.

Telefonica and Retevisión have long held licenses for GSM operations on 900 MHz. When three licenses for GSM on the 1800 MHz band were recently auctioned, two went to the established operators and Retevisión won the third, beating competition from a consortium that included France Telecom.

Of Spain's 39 million inhabitants, around 7.5 million have mobile phones. This corresponds to a mobile telephone density of 19 percent.

Ericsson and Siemens have had to share the radio part of the network, while Ericsson alone has supplied the switch equipment.

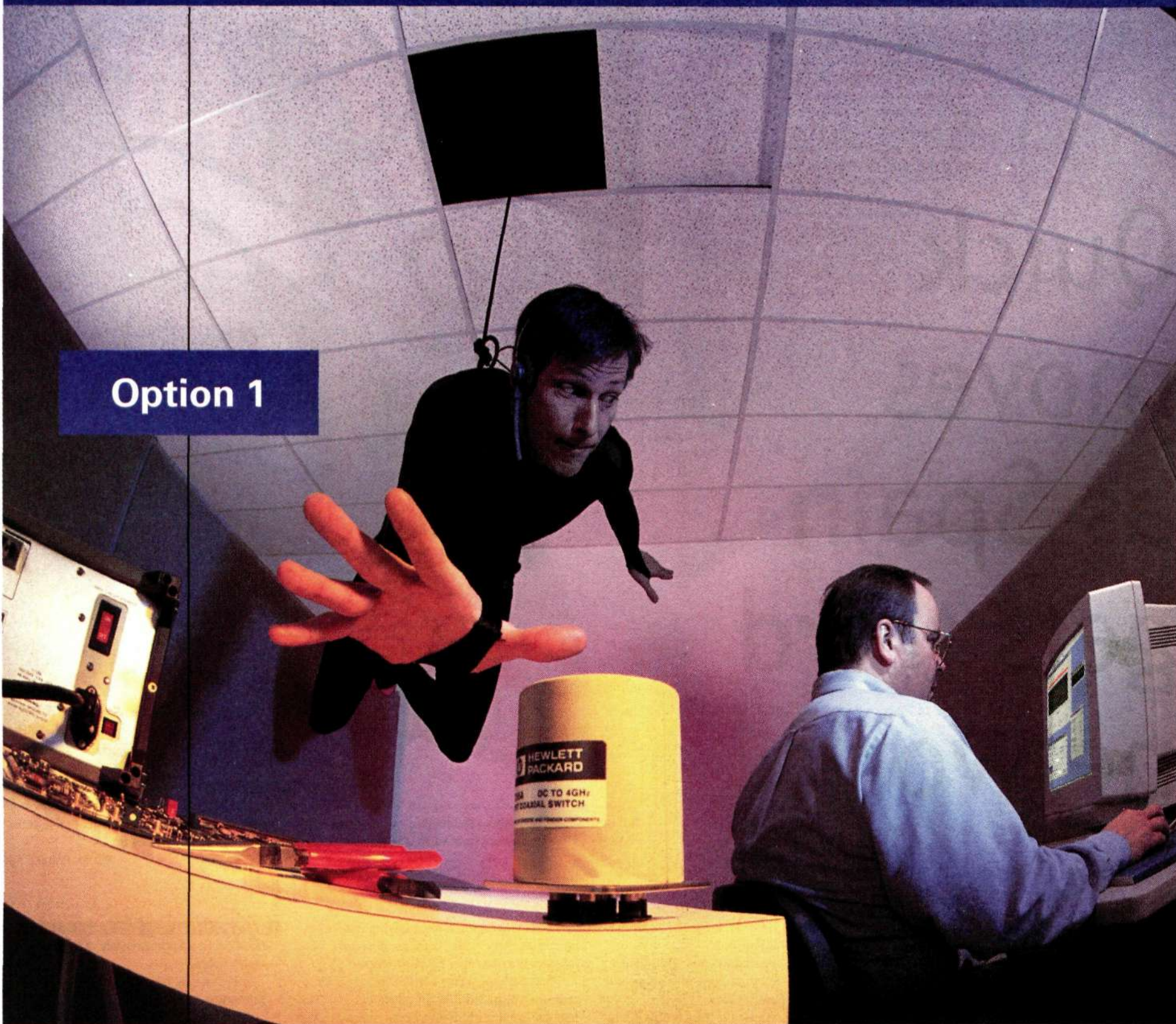
Madrid and Barcelona are both included in Ericsson's section of the network. It has been particularly difficult to find good base station sites in Barcelona. No buildings of historical importance may be used, since these are protected by law. Apart from that, not all old buildings can bear the weight of the equipment required for a base station, which weights about one ton. Many base stations have been set up on hotels, railway stations and electricity masts.

Patrik Lindén

patrik.linden@lme.ericsson.se

Situation: *You need a switch ASAP.*

Option 1



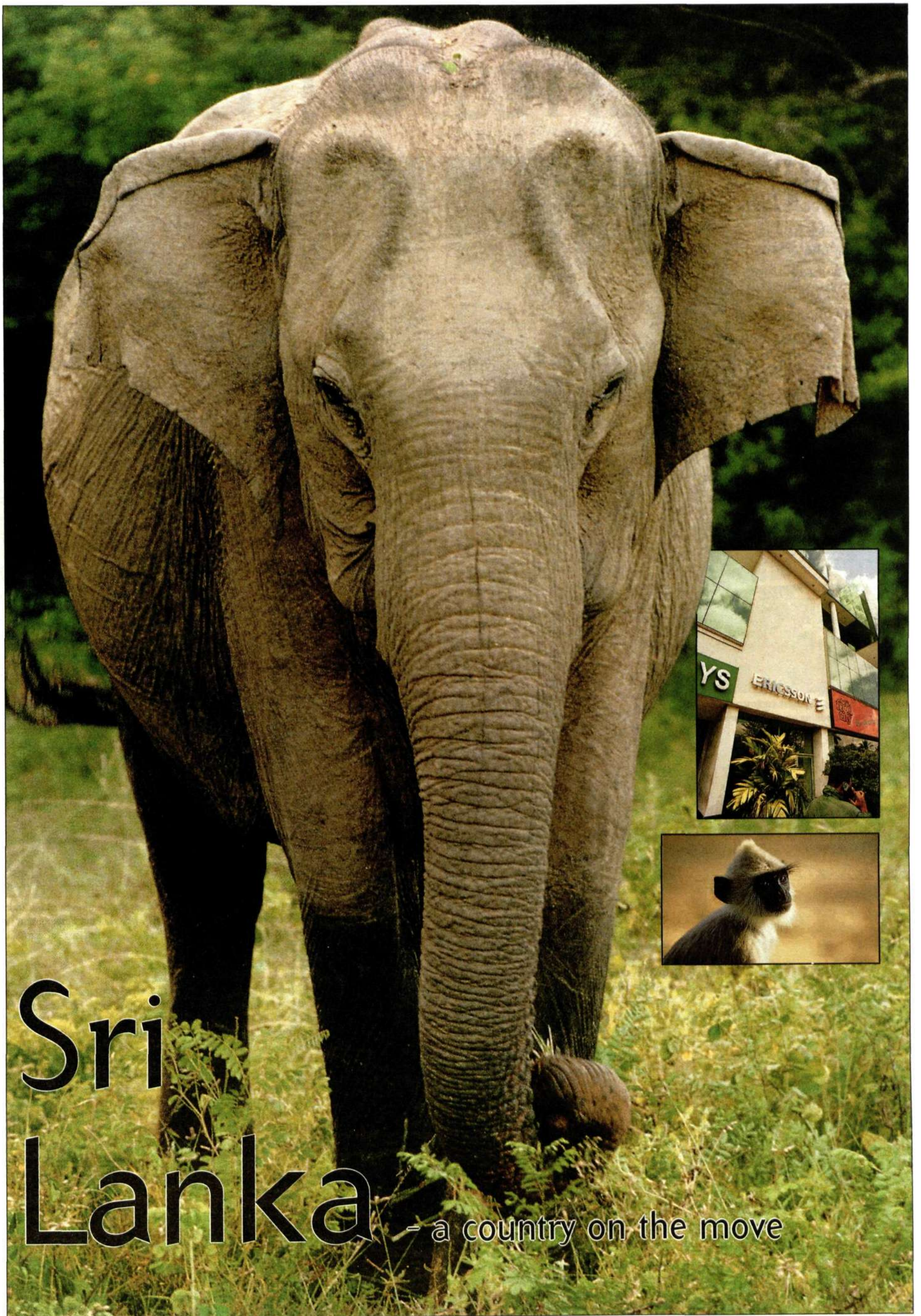
HP switches, including single-pole multi-throw, transfer and multi-port switches (pictured), offer 0.03 dB repeatability guaranteed to five million cycles. We also offer new matrix switches.

Option 2

Call HP DIRECT at one of the telephone numbers listed below for all your microwave test accessory needs.

It's not always convenient to "procure" test accessories from your colleagues. That's when you call HP DIRECT. With the help of HP engineers, choose from a selection of over 800 HP microwave test accessories. This ad will self-destruct in 10 seconds.

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Sri Lanka

- a country on the move

Ericsson is here to stay

Ericsson has come to Sri Lanka to stay. There is major growth potential and Ericsson has acquired useful experience and a broad network by establishing cooperation with the state-owned telephone company, Sri Lanka Telecom, at an early stage.

A fascinating country offering enormous potential for Ericsson's products and services.

This is Bo Almlöf's opinion of Sri Lanka, where he is president of the local Ericsson company. And he is someone who knows what he is talking about. Bo Almlöf has spent 25 of his 33 years with Ericsson outside Sweden.



Bo Almlöf

In addition to seven years in Latin America, Bo Almlöf has lived in India (two years), Malaysia (four years), Hong Kong (three years), Korea (four years) and Australia (six months).

Sri Lanka is developing fast, particularly in the area of communications. By playing an active role in the country for a relatively long time, Ericsson has attained a favorable position in relation to its competitors.

"But the market is open. Sri Lanka has deregulated large sections of the telecommunications sector and an increasing number of companies are establishing a presence here."

"This, of course, is attributable to the major potential in Sri Lanka, where only around four percent of the population have access to a telephone of their own."

"We estimate that net sales for 1999 will be SEK 295 million and that this figure will increase substantially in the next few years."

Ericsson has adopted a tactical approach in Sri Lanka.

Wholly owned subsidiary

The first Ericsson customer – and still the largest – is the state-owned Sri Lanka Telecom. SLTL had a monopoly for a very long time, but five years ago, the government granted permission for other players to become established and the introduction of new systems.

As other players have established a presence, Ericsson has experienced success in becoming a supplier of services and products. In 1994, a wholly owned subsidiary was formed in Sri Lanka – Ericsson Telecommunication Lanka (Pvt) Ltd. This was a significant step for the Sri Lankan government and for the market. The Sri Lankans have an enormous sense of national pride.

"We are currently involved in the modernization of traditional telecommunications in collaboration with SLTL. We are constructing WLL (Wireless Local Loop) in cooperation with Suntel and our latest joint project with Mobitel concerns the development of the mobile telephone system."

"Our mobile phones are selling well. In 1998, we sold 15,600 phones via Mobitel, which is our major distributor in Sri Lanka. This is the equivalent of approximately 20 percent of the total market."

Mobitel is Ericsson's latest customer and, working together, the companies will digitize the national AMPS network.

This contract is worth around SEK 160 million for Ericsson. Now Ericsson Sri Lanka's president, Bo Almlöf, and his colleagues are planning for



Despite the civil war in the north of the country, Sri Lanka has stable growth of around six percent. The substantial availability of fruit, vegetables, fish and coconuts means that, despite widespread poverty, the population is not starving. Photo: Lars Åström/Världsbilden

the future. High on the list of priorities are GSM and the accompanying increase in the sales of mobile phones.

Today, Ericsson Telecommunication Lanka employs around 140 people, ten of whom are foreigners. A few years ago, there were thirty foreigners and the number is to be further reduced to only six people. The number of Sri Lankan employees has also fallen from 250 to around 125 today.

"We are refining our workforce all the time. Of

course, we want to have as many native employees as possible. That is an important factor for many reasons."

"Our experience of working with the Sri Lankans is extremely positive. They have a high level of education and are prepared to learn, as well as work hard and efficiently. Many Sri Lankans are also experienced in working with foreign companies."

Jan A Blomstrand

SRI LANKA

The country that has had many names over the years – like Taprobane and Ceylon – lies, like a droplet falling from mainland India, 500 kilometers from the equator.

Well-protected from the torrential monsoons and storms, the country's 19 million inhabitants enjoy a stable growth rate of approximately six percent, despite the civil war in the north. The substantial availability of fruit, vegetables, fish and coconuts means that, despite

widespread poverty, the population is not starving.

There are many ethnic groups on the island and, consequently, many religions, including Buddhism, Hinduism, Islam and Catholicism.

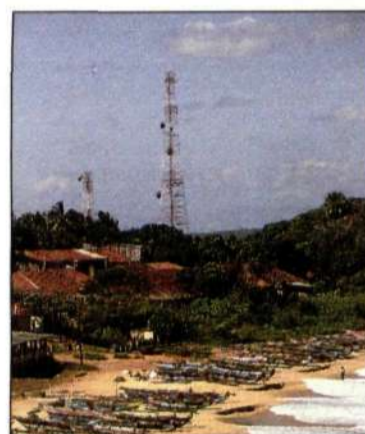
This factor creates friction between the ethnic groups, but also an incredible amount of creativity and activity. Friction between the Sinhalese and Tamil ethnic groups has long been a part of this country's many thousands

of years of history, but the use of modern weapons has resulted in devastating consequences for the population, especially those in the northern and eastern regions.

But growth is strong despite the troubles. It is around the capital, Colombo, the old capital Kandy, and in the south, that growth is strongest and that is where the great potential for operating telephone companies is to be found.



Mobitel is Ericsson's latest customer in Sri Lanka. The companies are to join forces to digitize the national AMPS network.



Sri Lanka is developing rapidly, particularly in the field of communications.



Rapid development for Suntel

Cooperation with Suntel could have ended badly – for both parties. The Suntel company is owned by Telia of Sweden, the majority shareholder, local companies and a telecom fund from Hong Kong. The company's Swedish president, Jan Campbell, has worked for both Telia and Ericsson and has 22 years' experience of the industry.

The company has a license to operate using Wireless Local Loop technology, making Suntel a pioneer in this field in Sri Lanka, and this has naturally meant that the company has had to deal with some initial problems.

That is where the story might have ended. Ericsson, as the major supplier, and Suntel spent a lot of time together. At one point, it looked as though they would part company.

Lack of technology

"The technology had its faults in the beginning and we were forced to take the bull by the horns," Johan Adler, Ericsson's marketing manager, tells Contact.

"We solved the problem in conjunction with Suntel. For a time, we had 50 people employed full-time with refining the technology, since this was our first major delivery of WLL," he continues.

"Now the network is working perfectly and we have acquired enormous experience and an extremely important reference project."

"Of course, there have been long and tough discussions with Ericsson," says Jan Campbell. "There were early morning calls to Ericsson Sri Lanka president, Bo Almlöf, and also late-night meetings."

"Now we solve most of the minor problems on the golf course."

Today, after two years in the market, Suntel has almost 50,000 subscribers. The goal is to have 100,000 by the end of the year 2000. The company currently has 332 employees, two of whom are Swedish. An impressive training and personnel program has been developed by the company. Jan Campbell is extremely positive about his colleagues' involvement and willpower. A German biologist called Ernst Haeckel, who studied in Sri

Lanka in 1888, wrote in his travelogue: "Wonderful Sri Lankans. All you need to worry about is keeping the things that grow alive. For the rest of the day, you can enjoy yourselves. You appear to have no worries about what tomorrow may bring."

Jan Campbell does not subscribe to that view in the least.

Job rotation

"The Sri Lankans want to develop their country and use the most modern technology available. They are highly committed to the company and we have no problems recruiting skilled labor. We also organize competitions for the sales staff and others. We let the staff rotate between jobs. That way we create a perception that all functions are equally important in relation to our customers."

Two of Suntel's employees are to make what might be the most exciting journey of their lives later this year. They are to visit the ice hotel in the far north of Sweden. One of the winners is being sponsored by Ericsson. Suntel and Ericsson are

SEVEN OPERATORS

Sri Lanka has deregulated telecommunications throughout the country, which is an unusual step in this part of the world. There are seven major operators – three fixed system and four mobile operators.

Ericsson is involved in three systems which are operative in Sri Lanka.

Sri Lanka Telecom Ltd

The state-owned Sri Lanka Telecom company is an old Ericsson customer and the company is modernizing the fixed network across the entire country.

SL Telecom is currently the largest operator in Sri Lanka (around 450,000 subscribers) and by cooperating with SL, Ericsson was able to learn about conditions in the country, while also establishing contacts with politicians, the authorities and local operators.

Suntel

The privately owned company Suntel (see interview with the company's Swedish president, Jan Campbell) holds a license to build a Wireless Local Loop system in Sri Lanka. Ericsson is the major supplier for this project and there is intensive cooperation between the two companies.

Mobitel

A company owned by Telstra of Australia (60 percent) and the state-owned Sri Lanka Telecom (40 percent) is one of four mobile telephone companies in Sri Lanka. Ericsson recently signed an agreement with Mobitel that could end up being worth as much as USD 20 million over the next few years. Mobitel will also market and sell Ericsson mobile phones, which use AMPS and D-AMPS technology.

Other companies

Callink, Celltel and Dialog are the other operators in Sri Lanka, who are also on Ericsson's list of customers, albeit to a lesser extent.



Suntel's president Jan Campbell and Johan Adler from Ericsson.

both winners in Sri Lanka. Suntel, which today has a perfect system, well-suited to Asian conditions. And Ericsson which, after hard and laborious efforts, has acquired an excellent market position.

Jan A Blomstrand

Unique cooperation between the telecom industry and the academic world has been started at Berkeley in California. Never before have competing companies worked so unconditionally at such a high level. The subject is the generation of mobile telephony that will follow the next generation, that is what will emerge after third-generation broadband systems.

Radio technology elite gathered at Berkeley

A new research center was inaugurated at Berkeley University, east of San Francisco, on January 29. A specially designed laboratory occupying 11,000 square meters of floor space covering one story of a detached building just off-campus will become a gathering place for the world's elite radio technology researchers. Over the next three years, researchers will try to solve fundamental problems surrounding wireless communications. They will focus on such questions as incorporating an entire system on a single chip, reducing energy consumption and increasing the number of operations per second. Much of the work will involve hardware development, without any exotic solutions – a development project focused on upgrading today's technology, which still has a long way to optimal achievement.

The Berkeley Wireless Research Center will gather more than 50 researchers, including 10 professors, to work in an environment designed for close and creative cooperation.

All research will be conducted openly, and all research findings will be made public; that alone is quite unique. The objective is to allow the entire industry to benefit from technological progress and, for financial reasons, reach a broad critical mass of manufacturers and consumers.

Representatives of the university and private industry, including Ericsson, delivered keynote speeches at the inauguration ceremony. Jan Uddenfeldt, Senior Vice President, Corporate Technology, emphasized the enormous potential of the wireless telephone mar-

ket, which he added, is still in its embryonic stage.

"Wireless access to the Internet and small, low-effect terminals and communications over broadband networks without disruptive delays are what the consumer wants, and we have selected a few key persons from Ericsson to work here as experts in cooperation with research students at Berkeley."

Mentors for doctoral candidates

One of the concepts of the Berkeley Wireless Research Center is that telecom industry experts will serve as mentors for doctoral candidates. It is more common for private industry to accommodate academic researchers in their own facilities, in the hope of recruiting them for future employment.

"Berkeley is known for its liberal research climate, an atmosphere in which professors truly work in close cooperation with their students, and a place where leading independent experts also assist in the learning process," says Per Tjernlund, a member of Ericsson's research department who has worked for six months establishing various forms of cooperation at Berkeley.

"Professors socialize and work with students here at all times of the day and night. The emphasis is on cooperation, not prestige. The younger professors blend in with the students, and they all strive to achieve significant research results.

Founded in 1878, Berkeley has slightly more than 30,000 students today. The university distinguished itself in the 1960s as a hotbed for

progressive movements and by tradition, in its capacity as a state-owned institute of higher learning, has always represented a culture unto itself – much different than Stanford, the privately owned university on the other side of San Francisco Bay.

Rapid development

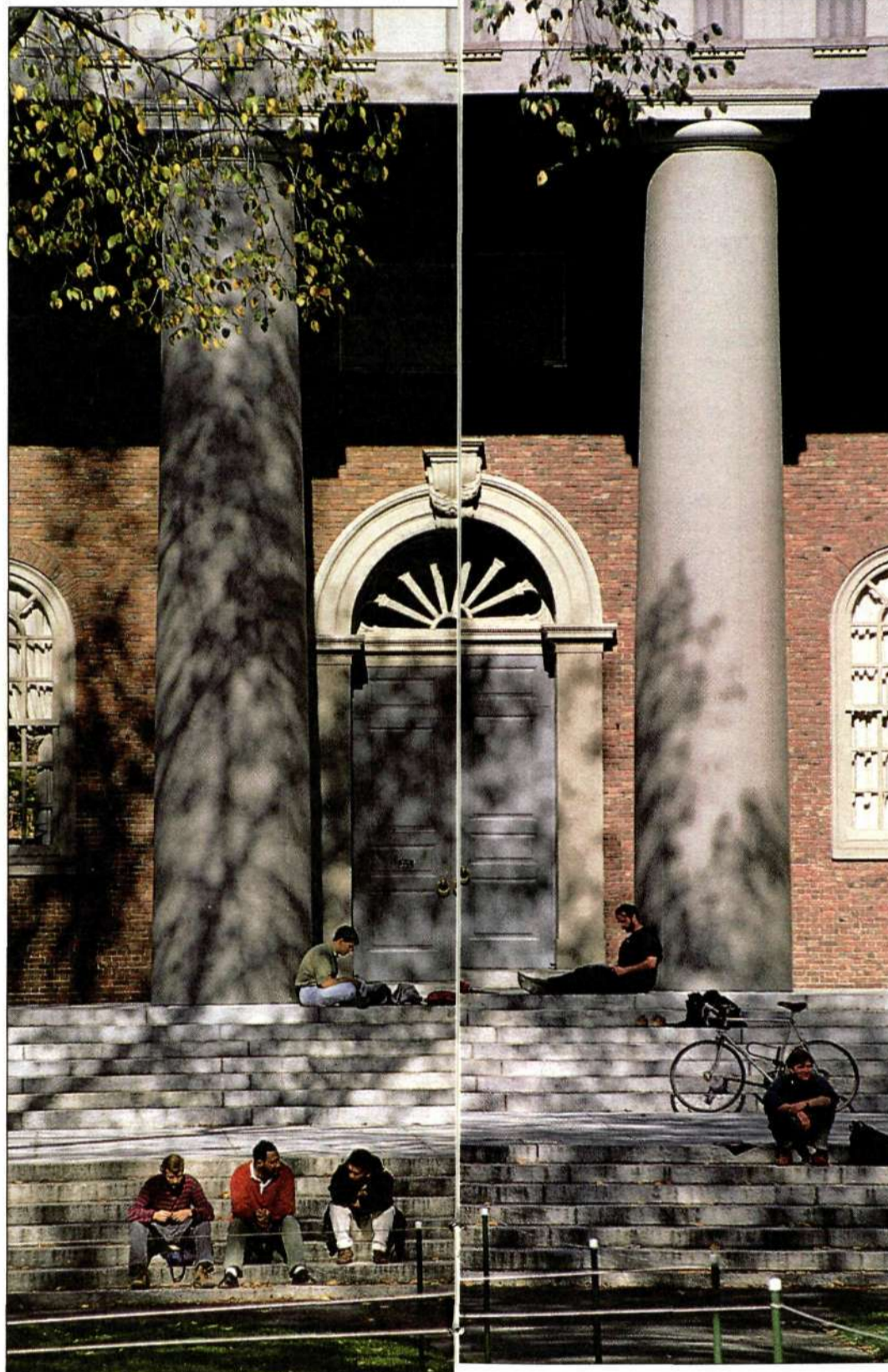
Development and construction of the research center has proceeded rapidly. The decision to open a center was made just over a year ago and, as recently as last October, the premises were still vacant. At the inauguration ceremony on January 29, all equipment was installed, including the internal communications network, an open forum with 40 "unpersonalized" work stations and a sophisticated electronic laboratory.

Bob Brodersen, a man of Danish descent and a friend of Per Tjernlund for many years, is the research center's key figure. His past experience includes management of an Info-Pad project that now forms part of the basis for the new center. The project focused on developing small, light-weight, energy efficient terminals for multimedia.

In addition to Ericsson, other private companies taking part in the research program include Cadence (software tools), Hewlett-Packard, Lucent, Texas Instruments, Intel and ST Microelectronics. Ericsson will contribute more than SEK 1 million to the center.

Lars Cederquist

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Right: Ericsson is a leader in the field of telecom and datacom research. Ericsson's technical director Jan Uddenfeldt was present at the opening of the new Berkeley Wireless Research Center in California. Bob Brodersen, left, was the driving force behind the project.



Last assignment for Ericsson

"Hi, I know you," said Per Tjernlund, known as Pekka to his many friends and acquaintances, when we met by the open fireplace in the lobby of the Pan Pacific Hotel in San Francisco. It was Thursday evening, January 28, the night before the new research center in Berkeley was officially inaugurated.

Pekka was hungry. He hadn't eaten since lunch, so he ordered coffee and a sandwich.

"Take the other half, if you want," he said, biting into a chicken sandwich with signs of a hearty appetite.

He looked tired, but quite content. His last major project before retirement, establishing a program of research focused on radio technologies of the future in cooperation with Berkeley University, was almost finished. He had spent most of the day in meetings and discussions, taking care of last-minute preparations. He lives across the Bay, where he and his wife Elisabeth have spent the past six months in the former home of his old friend Bob Brodersen. The bar pianist started playing something by Monk, and we moved away into a quieter corner of the room.

"Bob and I had talked about doing something here at Berkeley for years," says Pekka, "so when I suggested to Janne Uddenfeldt that I spend the last six months before my retirement developing a program of research cooperation with Berkeley University, he replied: 'OK, good idea!' After that I knew I had the full support of both Uddenfeldt and other key persons in the radio sector."

Berkeley Wireless Research Center will be the crown in Per Tjernlund's long career with Ericsson. And it seems only natural for Pekka to finish his career by playing a major role in the start of research into one-chip supersystems of future radio, with systems that will self-adapt to different standards and cordless machines in intelligent homes.

Designated expert

It all started in 1970, when he joined what was still Svenska Radioaktiebolaget where manager Sven-Olof Öhrvik had just begun to realize the potential of digital radio technology and, without further ado, named Per Tjernlund an expert in voice coding. The designation had some relevance to Pekka's studies at the Royal Institute of Technology, where he spent some time looking into voice coding and the problems involved in coding the human voice in binary ones and zeroes.

After about 12 years, however, he left the research department for a brief interlude with Transvortex, a former Ericsson company that dealt with digitizing and encryption. He then worked a few years for another company, getting involved in voice synthetics and voice recognition for banks and other companies. He returned to Ericsson in 1986, started working with speech scramblers for Erik Örnulf and eventually joined in the American battle over digital mobile standard selections.

"For two years, I traveled about once a month to California, where we were working on a DMPS project, and you might say I am partly to blame for the D-AMPS voice coder, the one criticized so harshly for its lack of

quality," Pekka says with a barely discernible smile.

That was back in the late-1980s, a critical point for Ericsson's future in mobile telephony. Would the company choose FDMA as its standard, or TDMA?

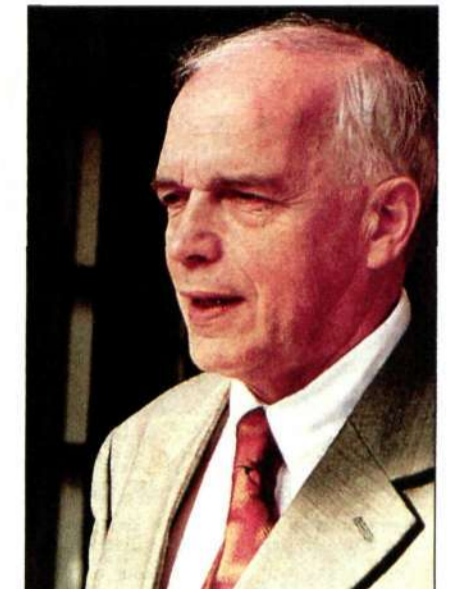
Pekka managed the signal processing part of the project, and practical demonstrations called "Seeing is believing" became a major factor in the U.S.

Three voice channels for the price of one

Those were the days when Ericsson drove around Los Angeles in the company's demo car to prove that TDMA really could process transmissions over mountains and other imposing barriers. Economics represented another critical factor for operators, of course, and TDMA could handle three voice channels for the price of one.

Pekka also found time to work as Ericsson's design center in Research Triangle Park in North Carolina, before he assumed responsibility for research with the university in 1992. Both assignments consisted largely of maintaining administrative control over contacts between the different design centers and local colleges and universities, in parallel with personal efforts to cultivate major universities, such as Berkeley.

"When we inaugurate the research center here in Berkeley tomorrow, it will be my last day at Ericsson," Pekka Tjernlund explains, adding that he has no plans whatsoever to continue working. Instead, he told me, he's going to start preparing for a new life, a life in which salmon fishing will be an important ingredient.



"It's a unique achievement to bring together experts from the telecom industry to work in cooperation with university professors and students," Per Tjernlund said in reference to his final assignment – to develop a program of research cooperation with Berkeley University.

When the waiter brought the bill, Pekka took a credit card from his wallet and said: "I think Ericsson can pick up the tab for this one."

I agreed.

Lars Cederquist

Do you need to know what is going on in the industry?
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A course by Professor Björn Pehrson.
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Last day for registration: April 10

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Welcome to join our much appreciated courses with other participants from the industry!



KUNGL. TEKNISKA HÖGSKOLAN

Ericsson increases cooperation with highly

Research programs focused on radio technology have taken center stage at colleges and universities during recent years. Everybody seems to be interested in wireless communications today.

"Ericsson is involved in about 100 research projects now in progress at colleges and universities," says Peter Olanders, manager of ra-

dio technology research at Ericsson. "But there are vast differences between various types of cooperation and, if we count the number of

heavy radio projects, it amounts to about a handful.

In addition to the new research center in Berkeley, other radio technology projects include a program of European research cooperation with IMEC of Belgium, another with Lund's Institute of Technology, in which Eric-

son participates in an expertise center for chip designs at Lund's Institute of Applied Electronics. A Joint Research program is also being conducted in cooperation with the Royal Institute of Technology in Stockholm and another is focused on superlinks in cooperation with Stony Brook, on the American east coast.

prominent university

"We are seeing a shift in trends whereby Ericsson is becoming more open to cooperation with external interests," continues Peter Olanders. "It's extremely important for us to know what's happening in Silicon Valley, for example, learn how to work there, try to absorb the Valley's work culture, the higher

tempo and other factors. If the truth be known, we actually don't know what we might derive from these forms of research cooperation. But I'm convinced this is the right approach."

Lars Cederquist

This is the first in a series of articles that Contact plans to run, highlighting equal opportunity issues at Ericsson. We will visit areas within Ericsson where ambitious plans are underway to improve equality and find out what various individuals think about equal opportunities.

Equality is profitable

Only one third of all Ericsson employees are female. Women comprise a little over 15 percent of employees who have technical or engineering training. And fewer than 15 percent of the managers at Ericsson in Sweden are women.

"No, we don't yet have equality at Ericsson. We still have some way to go. Quite a bit of progress has been made, although many women no doubt feel frustrated that things are not moving any faster," says Britt Reigo, Senior Vice President, Corporate Human Resources, and the only woman on Ericsson's corporate executive team.

Equal opportunity efforts have intensified recently. For several years, Ericsson has established certain goals pertaining to equal opportunity, but it was not until the Swedish equal opportunity law was tightened in 1994 that this work took on a more organized form.

The law regarding equal opportunity in the workplace, prior to 1994, was fairly tame and provided few tools for the Swedish Equal Opportunities Ombudsman (JämO) to make employers comply with the law. But when the 1994 law was passed, containing more specific requirements to establish equal opportunity plans and to make a review of wages, Swedish employers felt pressure to operate in a more purposeful and structured manner.

Formed own committee

Ericsson formed its own equal opportunities committee with representatives from various companies and worker organizations in Sweden.

"We were not required by law to form an equal opportunities committee, but we felt that would be a good way to gain an overview and channel ideas. After that, it is the responsibility of every individual company to formulate a plan of action and conduct surveys," says Göran Whitlock, who is chairman of the equal opportunities committee.

During 1995, Ericsson organized a seminar to provide an extra boost to equal opportunities efforts. All Ericsson companies and workplaces were encouraged to carry out surveys and put together equal opportunity plans.

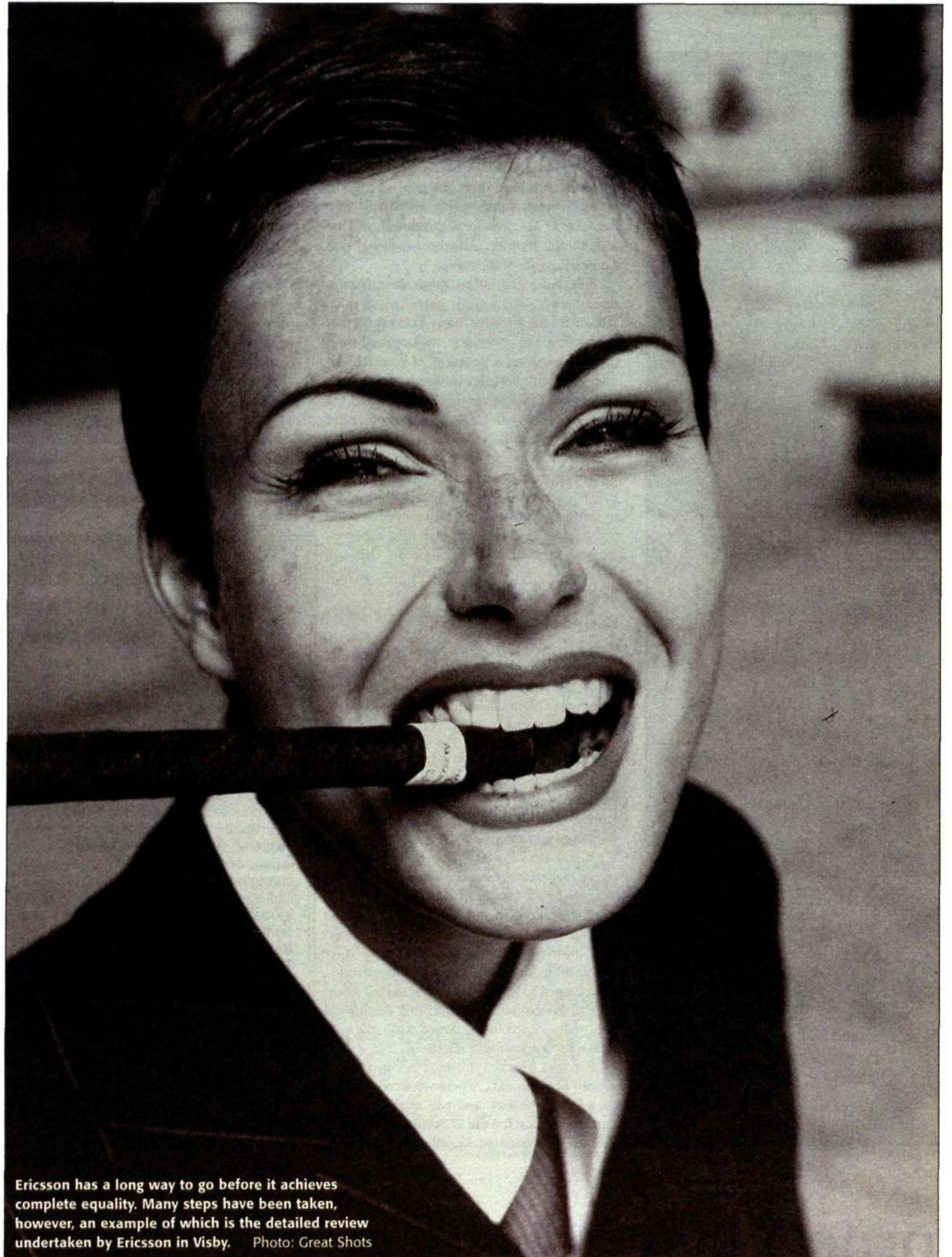
"A few have done quite a bit, while I'm afraid others have only started their work," says Göran Whitlock.

Equal opportunities law

According to the law, employers are required to annually review salary differences between males and females, formulate an equal opportunity plan that specifies measures to be taken and to make a follow-up of the year's work. But, even though the law has accelerated Ericsson's equal opportunity work, other forces have been at work as well.

In the business climate that Ericsson now faces, equal opportunity is about something much more crass and unglamorous: economics. If Ericsson is to be able to survive in a competitive world, it can not discriminate against half the population and 30 percent of its employees, simply because they are female.

Something else has happened as well. There are more women among the new recruits. Over the past two years, Ericsson in Sweden has acquired 50 new female managers, while the



Ericsson has a long way to go before it achieves complete equality. Many steps have been taken, however, an example of which is the detailed review undertaken by Ericsson in Visby. Photo: Great Shots

number of male managers has stayed roughly the same.

The equal opportunities committee, which was previously only concerned with Sweden, is now expanding its work to the rest of Europe.

A recently formed European committee will award an annual prize for the best advances in the area of equal opportunity. In recent years, many European countries have adopted laws

similar to the Swedish equal opportunity law. Recently, the EU also adopted far-reaching directives in this field.

The European committee's work will be much more limited than that of the Swedish committee, however.

"In Sweden there is a well-established dialogue with the unions and there is a long-standing tradition of discussing equality. In many countries, people are very

active but still have a long way to go to catch up on this discussion. We want to encourage equal opportunity work in these various countries, but we don't want to centralize these decisions. That is why we have created the equal opportunity prize," says Göran Whitlock.

Mia Widell Örnung
mia.widell@lme.ericsson.se

Visby on the right track

Man or woman must not matter. On Gotland equality is at the top of the agenda. And not just because it's the ethical thing to do or because the law requires it. Equality is a question of survival; a question of business economics.

"With the special circumstances here on the island, we are even more dependent on nurturing the resources we have. I look at our equal opportunity policy from the point of view of self-interest. It's all about helping the company. We have to make sure that we have the largest possible group of people to choose from when we hire someone," says Ove Alm.

Gotland is a small community, separated in many ways from the mainland. The labor market is limited. Ericsson, with its 1,000 employees, is the largest private employer. There are few highly educated people on the island and it is difficult to attract labor from the mainland. This somewhat isolated society forces employers to take advantage of the skills available. It would be economically detrimental to discriminate against large groups of people.

"On the other hand, the situation here on the island means people stay longer and help

ERICSSON IN VISBY

Number of employees: 920 of whom 347 are women.

Number of managers: 51 of whom 8 are women.

Number of engineers: 61 of whom 7 are women.

Average amount of overtime: 44 hours (women 29.4 and men 53)

out during peak production times. There is a mutual dependency," says Nils Jakobsson, the metalworkers' union representative on the equal opportunity group.

Made serious effort

Ericsson in Visby started its equal opportunity work following a national seminar organized by Ericsson in 1995. All companies and workplaces were told to map out wages and establish equal opportunity plans.

"As soon as we received the directive, we decided we wouldn't simply whip something together out of duty, but that we would put real effort into it," says Ove Alm.

"We started by forming an equal opportunities group. It was meant to be a small, diverse group. Young and old, women and men," says Susanne Linell, the personnel employee who received the task of creating an equal opportunities plan.

The group established a number of important goals in its equal opportunity plan. The plant would, for example, strive to achieve an even gender distribution in all positions and work groups, and to increase the number of women in typically male dominated positions.

"When we began our work, there was one female manager out of a total of 45. Today eight out of 51 are female," says Susanne Linell.

"Half of the women who have the qualities do not even apply for managerial jobs. I think that it's all about creating role models. Ericsson should create more role models. Upper management had a chance in conjunction with the reorganization, but they didn't take it. There are still only men in management, apart from

one single woman, and that's a shame," says Ove Alm.

Another goal that the equal opportunities group is struggling with is to provide men and women the same educational opportunities.

"I believe that it has become natural to talk about equality issues, due largely to the fact that it is included in managerial training," says Ylva Bergvall who is also a member of the equal opportunity group and has participated in leadership training in Visby.

"Managers also need to learn the languages of both women and men. Men more often say 'I can do it, I can handle the job', whereas women prefer to say 'I think that I can handle it'. If we aren't aware of the differences in language, we could be lured into thinking that men are more capable," says Ove Alm.

"The equal opportunity group should also stick its neck out, stir things up and get people to stop and think. In almost every issue of our internal newsletter, we try to include something about equality," says Ylva Bergvall.

Working on equal opportunity issues is a relatively thankless task, however.

"It's difficult to see concrete changes. This is about changing attitudes and that isn't done overnight," says Håkan Ek.

"We have been too broad in our equal opportunity work. This is an enormous area and there are no ready-made solutions. We have stumbled many times," says Ylva Bergvall.

"And we continue to do so," adds Nils Jakobsson, laughing. "But now we have started to make choices. It's better to focus on a few efforts."

Much of the work involves creating a workplace that is attractive to both men and



"This is about changing attitudes and that can't be done overnight," according to Susanne Linell, Nils Jakobsson, Ylva Bergvall and Håkan Ek, all of whom are members of Visby's equal opportunities group. Photo: Mia Widell Örnung

women. It is also necessary to show that both men and women can be promoted and that they get equal pay for equal work. Working conditions also play a large role.

"In some areas, there is a company culture that isn't good. In Kista, where I used to work, it was working overtime was seen as a virtue. Those who couldn't often had a bad conscience and suffered stress. Such a culture creates inequalities which weed out a certain category of individual. Constantly working overtime is no measure of loyalty," says Ove Alm.

Mia Widell Örnung

For Ericsson only

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DaCapo is one of Ericsson's chosen solution providers. DaCapo offers professional consulting services and customised business solutions based on web and CD-ROM technology.



Final negotiations are being conducted in Athens on the Erieye bid. Many details need to be worked out and everyone wants to have a say.

"The funny thing is that hardly more than a year ago we were practically considered a joke down here," says Göran Hedborg, marketing manager for the Erieye project in Greece. It was just over a year ago that EMW's aircraft partner, Saab, backed out, knocking EMW out of the running.

Erieye in Athens

From "joke" to final negotiations

Located fifteen minutes by car from the Athens airport, the newly built office building with a typical Ericsson design is abuzz with activity.

Most of Ericsson's operations in Greece are gathered here, including representatives from Ericsson Microwave who are working on the Erieye contract.

The facility feels very Ericsson: fresh, new floors, walls and chairs all in white and blue. And already it is rather crowded.

Like many other Ericsson companies, things are growing rapidly here, both in terms of the market and the number of employees.

Buildings, which were originally designed to house apartments for visiting employees, were quickly converted into new offices. Recently, an additional 260 square meters of office space was added.



Göran Hedborg

Final negotiations

At the end of January, final negotiations were initiated for one of the Ericsson company's largest orders ever, Erieye for Greece. Sitting on one side of the negotiating table are engineers and representatives from the Greek military.

On the other side of the table are salespeople and engineers from Ericsson Microwave, which is coordinating the final negotiations, Ericsson Hellas, Thomson and Embraer. Together, they will work out the details of the contract, including requirements and technical specifications.

"Even if the negotiations are difficult, the atmosphere is good. Everyone is working hard to find good solutions and things are always moving forward. But the days are long. We usually start at 8 in the morning and don't give up until around 11 at night," says Göran Hedborg.

Industrial cooperation

While these final discussions are going on, negotiations are also taking place regarding industrial cooperation. The same parties are involved, but they are represented by different people.

If agreement is reached, industrial cooperation will involve, among other things, the creation of a software company which will employ approximately 200 people, mostly programmers and systems engineers. No problems are expected in finding that number of engineers.

There are plenty of well-educated, recently graduated engineers. Nor is it as difficult as it is in Sweden, for example, to find engineers with a few years' experience.

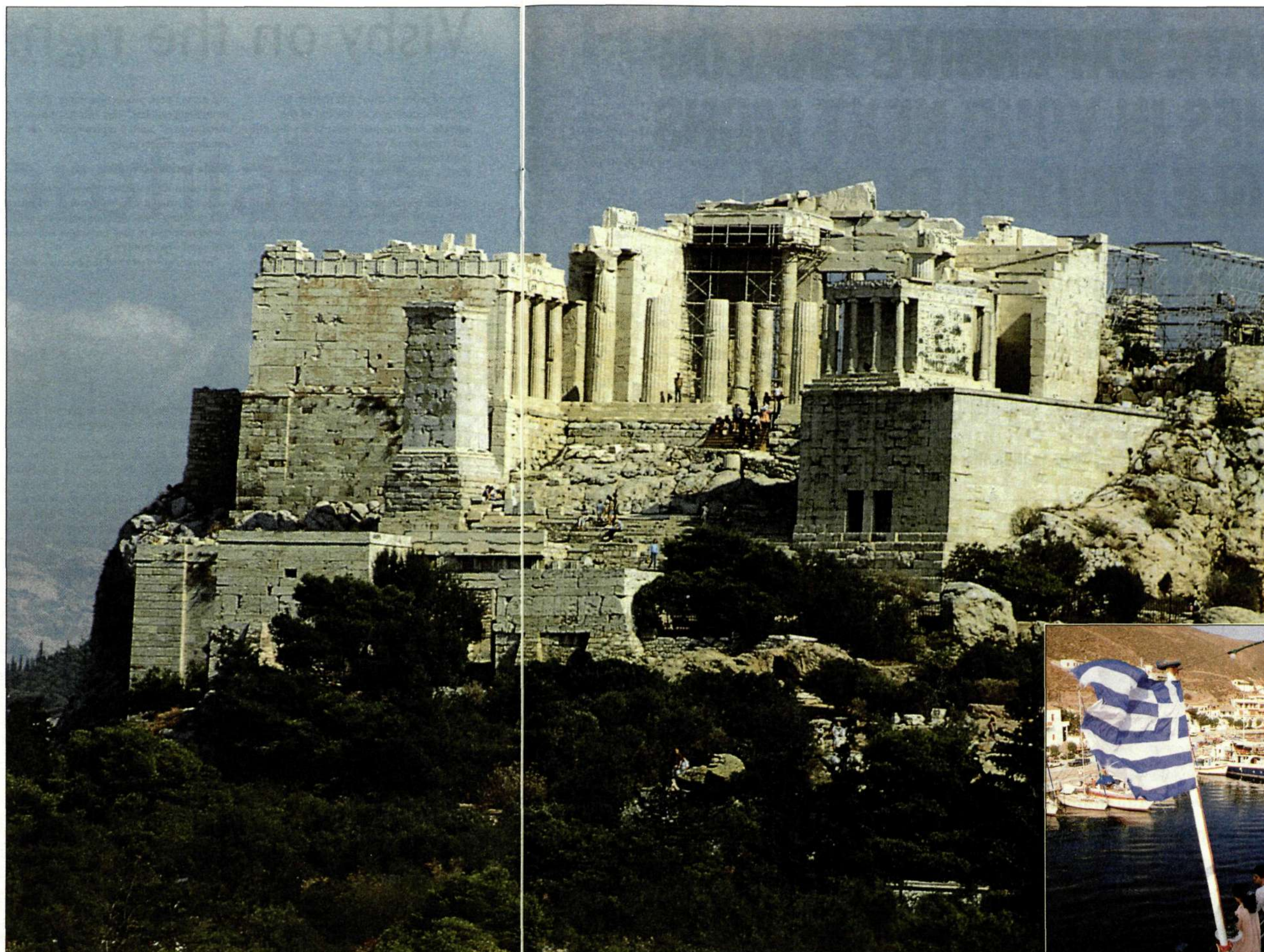
"There are plenty of universities with a technical emphasis, both in and around Athens. In addition, many Greeks travel abroad to study and work for a few years before returning home to settle," he says.

Purchase order

When the two contracts are ready, the customer, including the Greek Minister of Defence, will sign an award-order. This is a purchase order underlining that it is EMW and Thompson that the customer wants to do business with. If everything goes according to plan, the order will be signed during February. According to Göran Hedborg, the remaining specifications and documents will be ready no later than the beginning of April. Only then can the final order be signed.

In Greece, as well as surrounding countries, the final negotiations on the Erieye order have received a great deal of media attention. Is it possible that this bid could help net similar deals? "Yes, absolutely. One deal generates others. I'm positive that decision makers in other countries have started looking into our system, even countries which maybe didn't think they could afford an effective, airborne monitoring system before," concludes Göran Hedborg.

Ulrika Nybäck
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At the end of January, final negotiations were initiated for one of Ericsson's largest orders ever, Erieye for Greece. Photo: Pressens Bild

Right partners crucial

It is important to find the right partners for negotiations. Those partners who can provide good contacts and advice in different situations can be the deciding factor in winning a bid.

Establishing personal rapport, with the appropriate chemistry, is important in many situations, particularly if the working relationship is to last over a long period of time. This is especially true during final negotiations for a bid worth SEK 4.5 billion, where meetings run 14

hours a day, Monday to Friday. Göran Hedborg, marketing manager for the Erieye project, reports that the atmosphere during final negotiations has remained good, simplifying the work significantly. He also recounts which partners have been helpful.

"Ericsson Hellas has been a very big support. They have helped us find the appropriate partners, provided feedback and advised us on media contacts.

"Lars Björkenor, president, and Antony Rousseas, business development manager, both of Ericsson Hellas, have been important to us since they are well known here, both within business and political circles. They lend credibility to the bid," says Göran Hedborg.

in negotiations

The Swedish Embassy has also been an important partner in Greece. They have put representatives from Ericsson Microwave in touch with important governmental authorities in Greece and provided contacts with Swedish decision-makers. Ambassador Björn Elmér was instrumental in organizing a visit of the Greek minister of defense, Apostolos Tsohatzopoulos, to Ericsson headquarters in Stockholm last spring. At the beginning of February,

Swedish minister of defense, Björn von Sydow, visited Tsohatzopoulos to sign a defense cooperation agreement between Sweden and Greece.

This collaboration includes training operations. Two Greek consulting firms, Axon and Albion, are representing Ericsson Microwave in counter trade issues and are a part of the Erieye project sales organization.

"The collaboration with Axon has meant a

great deal for us, without their knowledge and industry experience, we would not have made the same amount of progress."

Once the Greeks sign the final contract, ISI, an American company, will develop a simulation program for Erieye, allowing operators to learn how to use the system and to train using different scenarios.

Ulrika Nybäck

ISI develops simulation program

The American company ISI is developing a simulation program that will allow operators to learn how to use the Erieye system and train for different scenarios. "The system provides a very realistic picture of reality," says Alan Hirt, president of ISI in Greece.

ISI Interoperability Systems International Hellas is an important partner for Ericsson Microwave.

It is developing a simulation program that will allow operators to learn how to use the system and train for various scenarios.

The man-machine interface is being developed by Erisoft in Luleå. The operating system uses data links and information from radar to create an overall image of the surroundings.



Alan Hirt

Details of surroundings

In order to use the simulation program, the operator needs to program in all known data pertaining to the surroundings, including what the terrain looks like and the direction, course and speed of other aircraft or ships.

Once all of the essential facts have been entered, the operator can train for real-life situations.

"The system provides a very realistic picture of reality. With the correct information programmed in, it provides very lifelike scenarios, such as those experienced during reconnaissance flights or wartime situations," explains Alan Hirt.

David Alban founded ISI eight years ago as a spin-off of the German company Rockwell Collins, along with two Americans and one European colleague.

They cite several reasons for establishing their company in Greece. Greece has plenty of engineers with the appropriate qualifications, it is a NATO country, taxes are reasonable and the weather is nice.

There will be 25 engineers at ISI working on the Erieye project.

Interface the biggest challenge

"The biggest challenge will be to develop an interface between Ericsson Microwave's radar and the computer links which conforms to NATO standards. It is important that the technical specifications be as precise as possible.

"Even so, we will be experimenting with those in different ways, before the program will become fully operational. But we feel confident about the task, it's nothing that we haven't been able to handle before," says Alan Hirt.

Ulrika Nybäck

May: Bid work initiated (1) July: Bid submitted (2)

MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL
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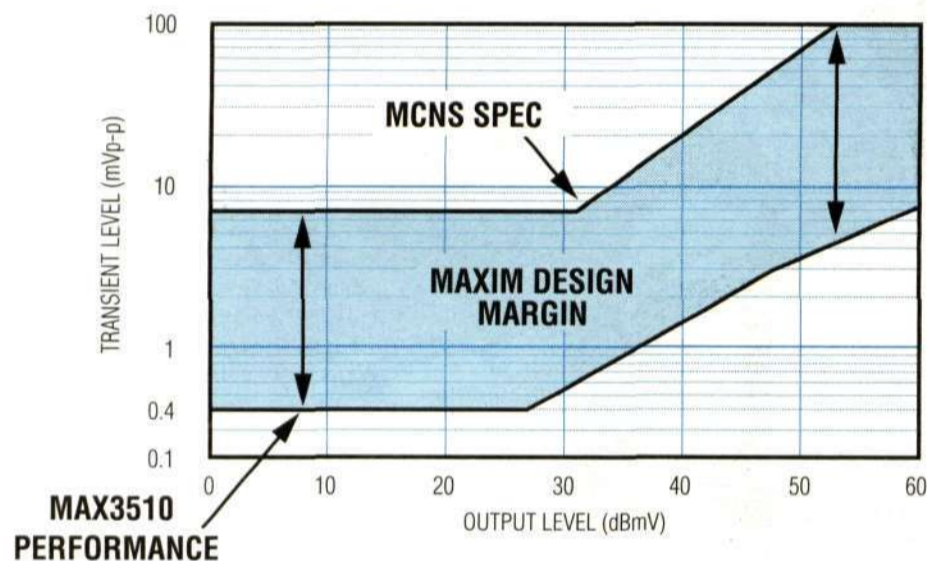
January 25: Final negotiations commenced in Athens (3) February 1: Swedish minister of defense visits Greece. Memorandum of understanding signed (4) February 8: Swedish minister of defense visits Greece. Joint Venture company formed (5) February: Award-order signed (6) Beginning of April: Contract may be signed (7)

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Full speed ahead in Taiwan

Presentations of customer solutions rather than products, and presentations based on customer perspectives, are relatively uncommon in the fixed telecommunications sector. But that was the new approach in a pilot project conducted by the Wireline Systems business unit of Ericsson's Asian Center in Malaysia in close cooperation with the Far Eastern Group, an industrial group in Taiwan.

"This is a new mode of operations for Wireline Systems and Ericsson in Taiwan. In the past, we concentrated on selling products. In this project, we worked with a future operator to develop a business plan in which we defined the market and presented an appropriate solution."

Phillip Tseng, senior director of Ericsson Taiwan's account division for Far EastOne, explains the project he managed and worked on full-time during the autumn.

Similar projects

A similar project was conducted recently from the Asian Center, which concerned PLDT, Philippine Long Distance Telephone Company in the Philippines, a market Ericsson is trying to penetrate with multimedia services.

The market for fixed telephony in Taiwan will be deregulated this year and operator licenses will be granted. The industrial group called Far Eastern Group includes Far EastOne, a mobile telephony operator that relies on Ericsson as the supplier of its GSM system. Far Eastern Group is also interested in fixed telecommunications and hopes to win one of the Taiwanese licenses. The company has established a fixed telecommunications group, and Ericsson is working closely with the new unit. Mobile telephony and its success in Taiwan have provided a strong platform for the pilot project.

One step ahead

"We have taken a pro-active approach, not waiting for any specifications from telecom authorities or the Far Eastern Group. In the past, we waited until all the decisions were made, but that time is gone now. By adopting the new mode of operations tested in the pilot project, Wireline Systems is now able to penetrate the decision-making process in its early stages, which saves time and enhances our potential to



Taiwan is striving to become a "telecom hub" in Asia, and it was important, therefore, to project Ericsson as a true technological leader, a company on the cutting edge of high-tech development.

Photo: Lars Åström/
Världsbilden

capture future contracts," says Cecilia de Leeuw.

Ms. de Leeuw works for the Wireline Systems Asian Center in Kuala Lumpur, but spent a great deal of time at Ericsson Taiwan Ltd in Taipei during the project.

In the business plan drawn up by Ericsson, special focus was placed on the potential market's size, what services might be required and which competitors would be encountered. Estimates were also made to project the customer's revenues and expenses. The scenario plans in Ericsson 2005 were put to good use in the project. Everything was studied from the customer's perspective. The project group consisted of marketing per-



Cecilia de Leeuw

sonnel and technicians from Ericsson Taiwan, a financial analyst and two consultants. The group's broad range and blend of skills and expertise were extremely productive. Work groups and discussions with representatives of the Far Eastern Group created a strong understanding of the customer.

The opportunity for Ericsson to present its business plan to the customer's Board of Directors was also somewhat out of the ordinary.

"It was golden opportunity to present Ericsson as much more than a supplier of mobile telephony; we also told the customer about our skills and expertise in fixed telephony and our ability to deliver solutions – not only products," says Cecilia de Leeuw.

Loft ambitions

Taiwan has set its sights on becoming a "telecom hub" in Asia, which makes it even more

important to project Ericsson's image as a true technological leader in fixed telecommunications.

"One of the most obvious results of this project was the importance of finding the right combinations of fixed and mobile telephony to meet customer needs. It brought us closer to the customer at an earlier stage, when business plans were being formulated, and it reflected a new Ericsson," says Claes Ödman, Vice President, Far EastOne Account Division. He also believes it was particularly rewarding to establish close cooperation at an early stage between the market unit, or local company, and the business unit. The work was facilitated a great deal by Wireline Systems' decision to establish a marketing organization in the region.

Gunilla Tamm

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Competition slashes prices in Germany

It has never been cheaper to make telephone calls in Germany. Following deregulation of the German telecom market in 1998, competition quickly became extremely intense and prices have declined dramatically.

Deutsche Telekom, the German giant, is besieged on all sides by as many as 20 new operators. With highly creative offers, new operators are courting subscribers in the huge German market, which comprises about 80 million residents. The customer is king in Germany today.

Klaus-Dieter Scheurle is Director-General of the authority that manages telecommunications in Germany. In a recent edition of the magazine Focus, he said:

"Competition has cut prices by as much as 70 percent."

More than 50 operators

Overall, there are about 50 new operators offering countless numbers of telecom services, many in niche segments. According to estimates, new telecom operators have created approximately 150,000 new jobs. In parallel, Deutsche Telekom has gradually reduced its workforce. As recently as 1995, the company had 213,000 employees and 42 million sub-

scribers. In 1997, the number of employees was down to 191,000 and telephone subscriptions had increased to well over 45 million.

During the first year of deregulation, Deutsche Telekom's share of the German market fell by 7 percent.

It was no surprise, therefore, when Ron Sommer, Director-General of Deutsche Telekom, countered aggressively early in 1999 by reducing prices by more than 60 percent. Nevertheless, telecom analyst Holger Grawe projects that no more than 78 percent of telephone calls will be transmitted via Deutsche Telekom at year-end 1999. Even that figure, however, reflects very strong dominance.

The analyst's forecast is based on present statistics, which show that 17 percent of the German population are customers of new operators, and the percentage is increasing constantly.

Nevertheless, there is a flood of attractive offers now being extended to customers in Germany. Supported by TV commercials, articles



The price of a telephone call in Germany has declined dramatically since the telecom market was deregulated, and Deutsche Telekom's position is under siege by 20 new competitors. Photo: Thord Andersson

and ads in magazines and newspapers, Germans are inundated with offers of cheaper rates for telephone calls.

And it's worth their while to study the offers. Some prices differ as much as 300 percent.

Least Cost Router

A service called Least Cost Router (LCR) automatically searches out the most inexpensive operator for long distance calls. To take advan-

tage of the offers being extended by different operators, users have to register with all of them. The service is free of charge, but it makes the range of offers much larger.

The high penetration rate of ISDN in the German market provides a host of attractive offers, particularly from Deutsche Telekom. ISDN increases the bandwidth and makes it possible to process two calls simultaneously.

The number of new Internet users in Germany is growing in leaps and bounds. Industry experts estimate that three million new users will go "online" in 1999. That would mean new telephony revenues corresponding to about 100 million telephone minutes per day.

Germany, obviously, is a "hot" telephone market. A great deal will happen this year, both in terms of unexpected and expected developments. With tremendous curiosity, we can all look forward to CeBIT, the world's largest data and telecom trade fair, which will be held in Hannover in March 18-24.

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Be a whiz at Outlook

This summer, Memo will disappear, and Ericsson employees are making a gradual transition to the Microsoft e-mail system, Exchange/Outlook. In the preceding issue, Contact explained how to check your e-mail in Outlook from the Web. In this issue, we're continuing the theme, providing tips on how to use Outlook as well as some netiquette.

Spellchecker

One of Outlook's lesser known functions is the spellchecker.

E-mail is by nature fast, and misspellings can occur. Since both Outlook and MSWord are Microsoft programs, the Word spellchecker can be used for e-mail, too.

Once you've written your message, open the Tools menu and select Spelling. A dialogue box appears, which looks basically like the one you are familiar with from MSWord. If it doesn't work as expected or if the wrong language is selected, you will have to make further adjustments.

From the basic Outlook menu bar – that is, not the menu for a particular message – open the Tools menu and mark the box labeled "Use Word as the e-mail editor." The next time you select "New message" on the File menu, open Tools, select Language, then Set Language and then select the appropriate language. You should now have access to all the usual MSWord functions when you send e-mail.

So, you no longer have any excuse for spelling mistakes in your e-mail!

Outlook has several small finesses. For example, you can have your computer answer incoming e-mail automatically, if you are on holiday or out of town.

Mail-answering service

Open the Tools menu and choose the appropriate menu option – that is, "Out of office assistant."

Type in the text you would like your mailbox to respond with, for example, that you are on holiday and will be back on a certain date, and the name of the person correspondents should contact while you are away. But don't forget to deactivate the service when you return.



Don't be a dummy! Learn the ABCs of e-mail.

Photo: Pressens Bild

Many more tips on using Outlook and Memo can be found on the website: <http://erimail.ericsson.se>

Netiquette

The above website also includes suggestions for improving netiquette (Internet etiquette) – for example, refraining from routinely issuing group e-mail. Many people receive up to one hundred e-mail messages a day and quickly tire

of irrelevant information. For the same reason, it is advisable to be brief and concise, and avoid padding.

Another tip given here is not to write e-mail when you are upset, since you could live to regret it.

Also, do fill in the subject box to help the receiver assess the contents. The undersigned has tried giving his e-mail the title "sex & violence," which works well if you want receivers

to drop whatever they're doing and throw themselves into your e-mail message.

Patrik Lindén

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<http://erimail.ericsson.se>

<http://erimail.ericsson.se/mailnews/etiquette.html>

Ad space on the Internet

Six different newspaper ads, a special campaign web site on the Internet and an opportunity to obtain valuable statistics.

That is a brief description of the GSM Systems business unit's new advertising campaign, which began at the end of February and will continue throughout the year.

Six different GSM areas are being presented in these full page ads being taken out in business and industry publications.

Altogether, the campaign is appearing in over 40 newspapers worldwide.

"Every ad has its own Internet address which leads directly to the subject the reader would like information about," explains Eva Andersson, project manager for advertising and marketing communication at GSM Systems.

On the same page, those who are interested can fill in their name and address and order



This is what the screensaver looks like, designed to remind viewers that Ericsson is a supplier of GSM systems. It is available for downloading through the advertisements' web sites.

brochures. Those names will also form a comprehensive database from which Ericsson's salespeople at GSM Systems can work.

By recording the number of hits, Ericsson can see directly how popular its advertising campaign is. It will also be possible to find out how the various ads and countries differ from each other.

In addition to ordering brochures through

the ads' web sites, it will also be possible to download a cool screensaver. The screensaver is designed to remind viewers that Ericsson is a supplier of GSM systems.

Gunilla Tamm

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www.ericsson.se/campaign



István Fodor

István manager of the year

► Ericsson's manager in Hungary, István Fodor, has received the "Manager of the Year" award from the Hungarian National Association of Managers. This is the fourth year that the prize has been awarded.

István Fodor has been manager of Ericsson in Hungary since 1990 and during that time Ericsson in Hungary has become the country's largest telecom company.

Contact 60 years ago

"Long-distance cable telephony has entered a new era through the use of carrier-frequency calling – that is, the transmission of several calls over a single line. We have developed a 16-channel system that has been installed in part of the new cable connecting Sweden and Finland, and which was placed in operation during the past few days."

This extract was taken from an interesting article by Hugo Blomberg in the second issue of Contact. At that time, Hugo Blomberg was head of the technical department of LM Ericsson.

Compare that situation with today's, where a single fiber the size of a strand of hair can transmit more than 20,000 calls simultaneously. No doubt about it, technology has undergone dramatic development.

During this period, there were plenty of social activities at LM Ericsson. The notables of the LME Society arranged many parties, one of which included a humorous speech about a new factory in Stockholm.

Rolf Engström from the government wine and spirits monopoly wrote about wine and other good drinks.

This was in the time of ration-books, when Swedish citizens could purchase no more than three liters of alcohol a month. This mainly concerned Swedish men, of course, since married women weren't assigned their own ration-books and only a few single women were entitled to have one.

The following describes an annual meeting of the LME Society:

"When we were tired of applauding, and hungry, we proceeded to dinner; then came the personal contact so strongly promoted in the statutes of the society – mainly dancing to live music, which was best during the breaks."

Air-raid siren developed

"The grim face of our times has forced us to develop an air-raid siren," Hugo Blomberg stated in the February, 1939 issue.

The air-raid siren Hugo Blomberg referred to was developed in cooperation with the Kockums company in Malmö in southern Sweden. It eventually became a highly profitable mainstay product for Ericsson, selling under the name of Typhoon.

Those who were alive at the time will no doubt remember the scream of the Typhoons, nicknamed Hoarse Fred, as they were tested



Contemporary advertisement for the air-raid siren from LM Ericsson.

every week in the major cities during the war years. Typhoon systems were still being sold in the mid-1970s, primarily to Middle Eastern countries.

Licenses

The March issue of Contact contained an article by Gustaf Segerström discussing the difference between selling products and selling services.

"Salespeople devote their energy to selling concrete products created by engineers. Both help to satisfy customer preferences, whether they concern the construction of telephone stations or telephone networks.

"Licensed operators, on the other hand, sell the often extremely delicate commodity of telephone service, so scandalously exposed to the scrutiny of the public, which has no understanding whatsoever of technical problems."

"I need only recall the story of the subscriber peevishly complaining: 'That switchboard operators should work eight hours and sleep eight hours I can understand, but not that they should do it at the same time!'"

Gustaf Segerström goes on to discuss the difficulty of maintaining a stable number of

workers in the Stockholm plant during the depression.

"Unfortunately, these days it isn't easy to forecast future telecommunications development in countries where we have telephone operations. Therefore, concerning the building of further telecommunications exchanges, a prudent policy would be to encourage licensed operators to increase their orders, even at times when they would prefer not to purchase anything."

"The future gives us cause for both pessimism and optimism. A look into the past, however, supports the cause of optimism, so badly needed in these times."

Rapid expansion

The article reflects the growth experienced during the period from 1928 to 1938.

During the period, the Empresa de Teléfonos Ericsson in Mexico grew from 31,996 to 84,722 phones connected, the Alcyjna Sójłka Telefoniczna in Poland from 74,410 to 134,577 and the Società Esercizi Telefonica in Italy from 30,500 to 77,576 – a growth rate of over 120 percent in ten years. Gustaf Segerström concludes:

"The total number of telephones hooked up at year-end 1938 was 322,609. What more could we ask!"

Thord Andersson

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In January, this Russian postage stamp was issued in honor of the 100th anniversary of the first interurban telephone line in Russia between St. Petersburg and Moscow.

Ericsson on Russian stamp

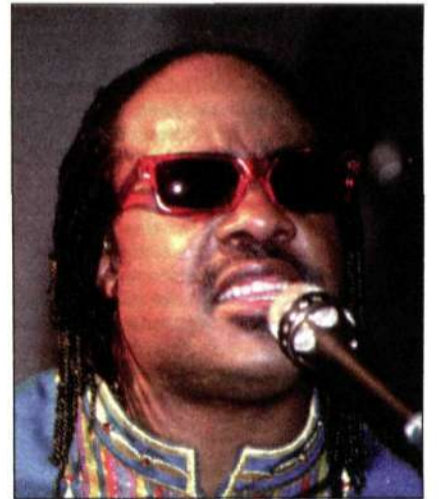
On January 13th this year, the Russian postal service issued a postage stamp recognizing Ericsson. The motif depicts an Ericsson Taxen telephone. The reason for the commemorative stamp was the 100th anniversary of the first interurban telephone line in Russia. The line, which ran between Moscow and St. Petersburg, was inaugurated in 1898.

In addition to Ericsson's Taxen telephone, the stamp also depicts famous buildings in Moscow and St. Petersburg.

Ericsson's Taxen telephone was also depicted on another Russian stamp back in 1982. On that occasion, it commemorated the 100th anniversary of Russia's first telephone network.

Ericsson has been operating in Russia since 1897. Operations there grew quickly and once there were even plans to relocate Ericsson's headquarters to St. Petersburg. In 1913, Ericsson had 650 employees in Russia and operations there accounted for 22 percent of company revenues.

About 3,000 people worked for Ericsson in Russia during World War I, and the telephone plant in St. Petersburg provided good profits. It was difficult, however, to transfer those profits back to Stockholm. Following the Russian Revolution, it became completely impossible as all of Ericsson's facilities were nationalized.



Music Prize for Stevie Wonder

► Recently, the Greek-French composer Yannis Xenakis and the American singer-songwriter Stevie Wonder were named as the winners of this year's Polar Music Prize. Ericsson is one of the three main sponsors of the prize for the next two years.

This means that Ericsson has responsibility for developing the new Polar Music Prize web site. The prize will be presented at a ceremony in Stockholm on May 31 this year. The web site will be continuously developed.

www.polarmusicprize.se

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vacancies

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■ This is a selection of vacancies within the Ericsson corporation. They are published in the electronic News system, which is being updated once a week.

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Contact No. 3 1999

Updated March 1

Ericsson Telecomunicazioni S.p.A., Italy

GSM TURNKEY PROJECTS - ROME AND MILAN

Ericsson Telecomunicazioni, TEI, is the main supplier to Telecom Italia Mobile, WIND a new operator which will start in Spring '99, and is well positioned to be the main supplier to the fourth potential operator later this year.

● TEI is looking for key individuals to help them develop, support and maintain new and existing GSM Turnkey Projects: AXE Trouble-shooters - BSS, SS, IN. Cell Planner/RF Engineer. Civil Engineer, site acquisition and build. BTS Installation and Test Supervisor. Network Design and System Engineer - Network Dimensioning, Network Integration Engineers - BSS, SS, IN. Support Engineer - IN. AXE Installation and Test Supervisor. Mini-Link Installation and Test Supervisor. Project Manager. Product Manager - BSS, SS, IN. System Engineer - AXE / Transmission and Access. Field Support Centre - BSS, SS, IN.

Some of these positions will require fluency in Italian. Experience of the following technology would be desirable: Radio - GSM 900 MHz and 1800 MHz (mod. 2101, 2202, 2302). Transmission - Mini Link 18, 23 and 38 GHz. Antennas - 900MHz and 1800 MHz Kathrein cross polarised.

Contact: Karen Hogarth +44 410 587300 or Marie McDonough +44 1483 305707 at ETL HR Solutions, or send your CV/Resume to memoid ETLMEMH or email karenhogarth@cwcom.net

Ericsson Telecom AB

MANAGER ACCESS PLATFORM & TECHNOLOGY STRATEGY

Ericsson lives in a new reality where telecom and data-com industries are converging at a rapid pace. Nowhere is that convergence more apparent than in the rapidly changing access area. Within access we see an increasing demand for greater bandwidth, lower cost of ownership and the provisioning of new services.

Product Unit Access and Product Offerings has been created to meet customer and end-user needs for future Access solutions. The Product unit has a broad product portfolio of both narrow-band and broadband access products.

To prosper in today's environment we must ensure that our products are built upon sound and futureproof platforms to be able to meet future requirements on both services and cost levels. To this end, a new unit has been formed within the Product Unit to deal with strategic choices of access platforms and architectures.

● We need a manager for our team. We are a mix of people with long experience from access, data, radio, switching and transmission from different countries. We analyze our competitors, the market and technical trends to enable us to steer our platform choices for the future. Customer presentations and support to marketing units are another part of our responsibilities. We work in close cooperation with other product lines.

Good proficiency with English is necessary since we cooperate closely with our product providing companies and our markets. An extra language is a plus. As a person you have a strong driving force with a twist of diplomacy. You enjoy both strategic, technical and commercial challenges.

Contact: Mark Hannon, (Acting) Manager Access Platforms, +46 8 7195421, mark.hannon@etx.ericsson.se Catarina Larson Åstrand, Human Resources, +46 8 7190836, catarina.larson-aststrand@etx.ericsson.se

LM Ericsson Israel Ltd (EOI)

PRODUCT MANAGER / BSS

Ericsson is the sole supplier of GSM 900 infrastructure to Orange/Partner in Israel. The network went into commercial operation in January this year. We are currently looking for a local product manager for BSS (Base Station Subsystem) products for a long-term (1year) assignment at our office in Tel Aviv.

● Responsibilities include: Product Management. Provide local product competence concerning GSM BSS

product functionality, performance, and future releases. Handle customer requests for customization and product development. Technical Sales Support. Assist in tender preparation and customer negotiations. Product Marketing. Actively promote Ericsson BSS products to secure future sales. Transfer of knowledge. Secure future hand-over of product management responsibilities to local employees.

Qualifications: A minimum of three years of experience of Ericsson cellular systems and radio network on a system level. Knowledge of the OSS (Operations and Support System) is an advantage. Previous experience of product management is an advantage.

We are a small organization, and the successful candidate must be prepared to work independently with a broad range of products.

Contact: Ulf SchubertH, Technical Manager, memoid: EOI.EOIULF Phone: +972 3 688 5005 Mats Asplund, Product Manager GSM Mkt., EOI.EOIMASP Phone: +972 3 688 5005 Elisabeth Ramel, HR Manager, memoid: EOI.EOIELRA Phone: +972 8 918 32 61 Application: LM Ericsson Israel Ltd ATT: Irene Snir 48 Derech Petach Tikva, 11th floor Tel Aviv 66 184 ISRAEL Fax: +972 8 918 32 62 or by memo: EOI.EOISNI

Ericsson Eurolab Deutschland GmbH

The new international CAPC organization currently encompasses 20 design centers with the overall responsibility allocated at Ericsson Eurolab (EED) in Herzogenrath-Aachen, in Germany. A total of 1.900 employees worldwide are responsible for the development of Transit & Network Access applications. CAPC serves the Product Units for GSM, PDC, TDMA, NMT and all Fixed Local and Translocal and Transgate Systems. Due to the need for new challenging projects in the Core Product Unit - Application Core we are looking for a

C-APC PROJECT MANAGER "NGS FEASIBILITY AND DEVELOPMENT"

The C-APC project office has a dynamic group of overall project managers and administrators managing key projects at the core of all applications. These projects encompass subprojects and associated projects in Netherlands, USA, Ireland, Finland, Sweden, Norway, England, Spain, Italy, Germany, Denmark, Australia, Mexico, Croatia, Brasil and Greece covering a vast range of development areas at the leading edge of technology.

● REQUIREMENTS : Bachelor of Engineering degree with specialization in telecommunications, or equivalent. Four years work experience in technical aspects of telecommunication. Three years proven experience in project management. Good knowledge of PROPS, project planning, budgeting and management methods. Good knowledge of mobile telephone systems and Ericsson business practices would be an advantage. Resourceful, flexible, initiative, good communication, co-operation skills and a good ability to work under pressure are important personal qualities. Traveling is a natural part of the job. Fluency in written and spoken English is required. Furthermore you should have strong interest in people and be willing to develop as a leader.

MAIN TASKS : Lead a large telephone system project with full responsibility for fulfillment of Ericsson's commitments to our customer.

The Project Office is located at Ericsson Eurolab Deutschland in Herzogenrath The position reports directly to EED/U/OPC, Manager of the Project Office

Contact/Application latest 990315: Human Resources Simon Seebass Dial: +49 2407 575-163 Memo: EED.EEDSIMS or Project Office Imo Freese Dial: +49 2407 575-469 Memo: EED.EEDIWF

Ericsson Switzerland (Bern) is supplying Swisscom Mobile with ND/NPI (Network Design/Network Performance Improvement) services. We are now looking for a

MANAGER RADIO NETWORK ENGINEERING, SWITZERLAND

● As a Manager over the Radio Network Engineering group you will be leading a young, flexible, and self-directed team of 15 engineers. The team is mainly working with ND/NPI (Network Design/Network Performance

Improvement) services towards Swisscom Mobile, but assignments outside Switzerland are also performed.

Technical Competencies/experiences - well proven technical experience in the field of ND/NPI as well as international experience, preferably from a similar position. The job is putting high demands on you as an engineer, since you will face the customer in many technical discussions.

Human Competencies - leadership skills, team building and motivation to succeed, good communication and presentation skills to facilitate customer facing role, relationship building and selling competence. Fluency in English and German or French is needed.

We are offering you a dynamic job in a demanding environment with excellent career opportunities.

Contact: Carl Aspenberg Telephone: +41 - 31 - 9983 572 Mobile: +41 - 79 - 3000 379 email: Carl.Aspenberg@ Application: Elisabetha Ledermüller Ruchstuckstrasse 21 8306 Brüttisellen Switzerland eas.ericsson.se

TDMA Systems Asia-Pacific, Singapore

TDMA/EDGE/3G LOBBYIST

You like to be challenged? The Asia-Pacific Task Force for TDMA systems covers an area of over 13 countries, from Pakistan down to Australia / New Zealand. We are working together in a team of highly professional individuals covering different areas, like: marketing & sales, business consulting, business development, marketing communications and TDMA/EDGE/3G lobbying.

● For the area of TDMA/EDGE/3G lobbying we are looking for 2-3 experienced individuals who want to join our team and are not afraid to take up a challenge. The challenge is: establish TDMA/EDGE/3G as the preferred technology for Asian operators in the 800- and 1900 Mhz band. Your main tasks will be:

Plan, together with the other members of the team and the local companies, to perform presentations, discussions and other TDMA/EDGE/3G lobbying activities towards operators, government bodies, investors, analysts and media. Maintain up-to-date information on the latest global developments in the area of TDMA, EDGE and 3G. Monitor progress on the different markets in the region, and if required take actions, to ensure that we meet our goal of establishing TDMA/EDGE/3G as the preferred standard in the Asia-Pacific. Maintain a close cooperation with the TDMA interest group UWCC. Actively work together with the corporate TDMA lobby group.

If you are the person we are looking for, you should have the following profile: MSc in Electrical Engineering or in Physics or equivalent education. At least 5 years experience with Mobile Systems. Excellent knowledge of the TDMA standard and the wide range of applications supported by this standard. Good understanding of the Ericsson 3G evolution path: EDGE/UWC-136 and W-CDMA. Excellent presentation skills. Extensive experience from meetings with the senior management of operators and government bodies. Experience with media relations. Team player and flexible attitude.

Do you fit this profile and you are interested to take up the challenge? Please respond to us by sending your CV to the e-mail address specified below (subject: job application), contact us or visit our homepage <http://enoweb.eno.ericsson.se/rmoa> for further information

Contact: Aart Houweling Manager TDMA/EDGE/3G Lobbying Asia-Pacific (acting) Business Phone: +65.3501 668 Hand Phone: +65.96624359 E-mail: aart.houweling@eno.ericsson.se or Urban Gillström Regional Director Asia-Pacific TDMA systems Business Phone: +65.3501 350 Hand Phone: +65.96583041

Ericsson Ltd, Product Unit - Transport & Transport Access, Solutions & Products, Horsham, UK

CHARACTERISTICS MANAGER - SDH & SDH ACCESS

● Role Summary: The Characteristics Manager is overall responsible to ensure that the system products fulfil relevant requirements regarding EMC, climate, mechanical endurance, product safety and power. This implies interaction with suppliers/partners, marketing units, external institutes and product management. The Characteristics Manager will support other parts of the organisation in technical matters within the area.

Key responsibilities: The Characteristics Manager is responsible and accountable for decisions regarding the technical direction of the products related to the characteristics areas mentioned above.

The characteristics manager in particular has the following responsibilities: In co-operation with product management, marketing and partners create, decide and develop characteristics strategies, plans and solutions for the product line based on market requirements and trends. Maintain knowledge of developments in the characteristics areas (related to transmission systems and the market place including competitor information). Identify technical business related opportunities and investigate required evolution. Document characteristics requirements in accordance with customer requirements and Ericsson's product evolution strategies. Provide support to the market, solutions and operations organisations in their business activities. Take part in technical review meetings with the internal or external parties. Present technical information to internal or external parties as appropriate. Act as prime competence source internally or externally regarding the characteristic areas EMC, climate, mechanical endurance, product safety and power

Qualifications / Experience: Minimum Ba level Engineering Degree (electronic or mechanical). At least 3 years in Characteristics Management or related function. Experience from practical environmental verifications. Experience from the Telecommunications industry is desirable.

Skills / Competencies: Being accustomed with relevant international specifications and a good ability to read and write requirement specifications is required. Networking as a method of working yet being independent and self driven within the responsibility area are appreciated personal characteristics. A well developed ability to transform theoretical knowledge into practice is required.

Contact: Johan Mardh, Product Area Manager, +44-1403-277423, ETL.ETLJCM or HR Contact: Chris Vaughan, +44-1403-277571, ETL.ETLCSVN

Ericsson Austria AG, Vienna, Austria

A world class challenge in the Alps - CUSTOMER PROJECT MANAGERS

For the 4th GSM licence in Austria, roll-out speed is the key to success. Ericsson is in a good position to be the system supplier.

This will demand the fastest network roll-out ever performed for a GSM system. It will also include site acquisition and civil works beside the normal implementation and integration of thousands of Radio Base Stations and the Switch sites. Network design and surveys will be performed by Ericsson.

We urgently need Customer Project Managers who are willing to take on the challenge and make this project to be a successful one!

TOTAL PROJECT MANAGER (VIENNA)

● Your responsibilities: Fulfill the scope of work of the total project. Run a project with hundreds of Ericsson employees and several hundreds of external suppliers. Overall responsibility for Site Acquisition, Civil Works, Installation, Integration, Network Design and Surveys. Recruitment of personnel and agreements with external suppliers. Co-ordinate all activities in whole Austria including the different regions.

Your experiences & background: Besides a long experience as a Customer Project Manager with all common experiences needed in such a position we also want you to have: Proven track record of running big and complicated customer projects successfully. Experiences of Site Acquisition and Civil Works. Good command of German language. Excellent managerial skills.

REGIONAL PROJECT MANAGERS (SEVERAL POSITIONS OPEN)

● Your responsibilities: Total responsibility for all activities in a region. Site Acquisition, Civil Works, Installation and integration for your region. Network Design and surveys for your region. Co-ordinate the activities in your region with the rest of Austria Recruitment of personnel and agreements with external suppliers

Your experiences & background: Besides a long experience as a Customer Project Manager with all common experiences needed in such a position we also want you to have: Ability to be responsible for a project in a remote regional office. Proven track record of running customer projects successfully. Experiences of Site Acquisition and Civil Works. Good command of German language. Excellent managerial skills.

Contact: Nils Torstensson (nils.torstensson@sea.ericsson.se) Tel: +43 664 460 65 28 Marcus Schubert (marcus.schubert@sea.ericsson.se) Tel: +43 664 101 61 78 Application: Daniela Giovannozzi (daniela.giovannozzi@sea.ericsson.se) Tel: +43 1 811 00 4316 Fax: +43 1 811 00 4310 Ericsson Austria AG Pottendorfer Strasse 25-27 A-1120 Vienna Austria

Ericsson China Company Ltd, China

Beijing, China 2nd Line System Support is looking for two System Experts to replace two of our Experts, who has been with the Support in Beijing for four and five years, and now has to leave China. The Beijing SA-FSC supports China Mainland, Hong Kong and Macau.

The coming challenges are in: Hong Kong CME20 R8 and GPRS. China Mainland Mobile IN and IP.

Beijing offers an exciting mix of culture, food, people, fun and the contract conditions are very attractive.

SYSTEM EXPERT APZ AND IOG

● Time period (start-end): Starting ASAP, duration of contract 1-3 years.

Location: SA-FSC Beijing, China

Main responsibilities for the position: APZ and IOG 2nd line support and supply. Transfer of knowledge.

Essential technical competence: Be able to: Perform advanced Troubleshooting, in "live" networks. Create CN-A packages. Develop methods for ASR and APZ/IO replacements. Analyze restart and error logs.

Essential practical experience from: Customer support. IOG Modification Handling and Supply projects. On site Implementation and FOA experience.

Personal skills: Have the capability to adjust to a very dynamically environment and work situation. To take responsibilities and be creative is encouraged.

SYSTEM EXPERT C7 SIGNALING

● Time period (start-end): Starting 990701, duration of contract 1-3 years.

Location: Beijing, China

Main responsibilities for the position: C7 Signaling 2nd line support and supply. Transfer of knowledge.

Essential technical competence A very deep knowledge in Signaling specifications and standards.

Be able to: Analyze signaling and Protocol tracings. Perform advanced Troubleshooting, in "live" networks. Write Corrections/Patched solutions in emergency situations. Develop technical methods.

Preferred technical competence in: IP, Internet Protocol. MIN, Mobile Intelligent Network.

Essential practical experience from: Customer support. Multi Vendor Interface/Protocol testing. Good knowledge in Protocol analyzer tools. On-site Implementation and FOA experience.

Personal skills: Have the capability to adjust to a very dynamically environment and work situation. To take responsibilities and be creative is encouraged.

Contact: Mr Christian Österberg ETC/RNZ +86 10 646 01122 ext:11801 /+86 1371268204 Memo: ETC.ETC-CHOS E-mail: etc.etchos@mesmtpe.ericsson.se

Ericsson Egypt Ltd. Cairo

Ericsson Egypt is a local company growing fast. In order to further increase the pace of competence build-up and transforming the responsibility for our Key Account Management to the local organisation, we are now looking for a manager on a long-term contract to our GSM Key Account department in Cairo.

KEY ACCOUNT MANAGER

● The Key Account Manager will surpass the customer's high expectations. He will lead the account team, i.e Sales and Marketing, Technical Management and Project Management towards the GSM customer account. Through excellent customer and internal contacts, the KAM will market, negotiate and organise in order to reach top quality, budgets and consolidated bottom lines. The function includes leadership of a team including marketing, technical expertise and project management. Also work for the completion of market plans, complex contracts and forecasts will be important tasks. The Key Account Manager will be measured on customer satisfaction and consolidated customer contribution.

You are a business minded person with high management and co-ordinating skills, self-driven and result oriented. You must have some practical management experience. As you will be part of an international environment, you must also have an open personality, good communication and team working spirit. You should be able to motivate, inspire and guide your personnel to create synergism in the team.

Furthermore you should be fluent in English, desirably have experience from a global operator preferably, Vodafone or one of their joint ventures. You should have a M.Sc. with at least five to ten years working experience in the telecommunications field.

Contact: Gote Hedblom, HR Manager Ericsson Egypt, +20 2 303 6524, memoid ERAC.ERAGGHE. Application: by fax to Gote Hedblom, +20 2 303 6541 or by memoid ERAC.ERAGGHE.

Nippon Ericsson K.K., Japan

SENIOR INTEGRATION ENGINEER

● We are looking for a Senior Integration Engineer to work in Japan, which is one of the largest and fastest growing wireless markets in the world.

Main responsibilities: Prepares implementation instructions to ensure accurate and timely implementation of solutions and new application systems. Performs system test to ensure correctness of implementation procedures. Take decisions that effect quality and timeliness of work tasks. Participates with the customer in implementation investigations with a view to improve overall network performance. Leads investigations in conjunction with system design and integration engineers. Handle emergency situations during modification package implementations. Assists and guides lower level engineers to ensure correct working methodology. Represents Ericsson at customer meetings. Participates in Business case preparations

Requirements: The position requires applicants to have either a B.Sc. Computer Science, B. Electrical or Electronic Engineering, or experience/qualifications deemed to be equivalent. Ability to independently analyze and troubleshoot on technical faults of a high degree of difficulty and provide assistance/guidance to trainees and support engineers. Ability to review other colleague's documentation. Ability to improve products and processes within own control and aid others in such improvements. Ability to deal with the introduction of new application systems or modification to existing application systems.

A good understanding of the product structure through all levels from system to unit/block level, test environment structure and functions. Good telecommunication knowledge, e.g. telephony switching principles, traffic concepts, telecommunication networks, signaling and product functional demands. Understanding of the process flow of products from requirement to delivery, implementation and service. Knowledge of facilities and demands for good customer service. Good working knowledge of relevant quality systems.

Contact: NRJ/S/T/IC Lars Hansen, Manager Implementation Support Phone +81 45 475 0459 Memo: NRJ.NRJLRH

Ericsson Limited, Hong Kong

GSM SUPPORT SPECIALIST (MSC/BSC)

● We have one vacancy for an SS or BSC Support Engineer to strengthen our Support Team. The position is open for a System Expert, Principal Engineer or a Senior Engineer. The successful candidate will work towards local GSM and PCN customers and within a team which is also responsible for DAMPS and International Switching support.

The Support Team is responsible for all support activities related to AXE based systems, and the FOA implementations of new software releases. Support activities include TR analysis, help-desk handling, advanced trouble shooting, emergency support and emergency correction development.

Our customers maintain a leading edge commitment to mobile technology and new developments such as GPRS and W-CDMA are high on the agenda for 1999. (Our DAMPS customer will have the JAMBALA project completed this year). This is therefore an opportunity to be involved in the latest techniques.

You should have a sound knowledge of support activities specializing in either SS or BSC. You will be expected to transfer skills to the local engineers, a team player and strongly customer focused. Close relationships with our demanding customers are essential. The position can be either expatriate or a local employment.

Contact: Mr Brian Cakebread, phone (+852)28807828 (ECN: 886 7828) E-mail: brian.cakebread@ehk.ericsson.se Fax: (+852) 2590 9522.

Ericsson Canada

TECHNICAL ASSISTANCE SPECIALIST

● The posting is as follows: The Toronto CSO is looking for a Radio Base Station troubleshooter to complement our team of highly skilled professionals supporting our customers in Canada. We need a person who is experienced at troubleshooting in the RBS environment at the PLEX level.

Job Requirement: Degree in Engineering, Engineering technology or science or equivalent work experience. Several years related experience in telecommunications. Working knowledge and understanding of cellular systems. Four years experience with Ericsson or equivalent cellular experience. Trained in CMS-8800 cell site operations and maintenance (experience an asset). Two years experience in RBS troubleshooting a must ('Test System' experience a must). Excellent oral and written communication skills.

Job Description: 24 hour 'first line' technical/emergency support for CMS88 networks. Preparations of procedure and verification of functionality of functions/correction regardless of complexity. Responsibility to define/verify a new AS. Communicate and assist customer/field personnel in technical and operational questions. Assist in emergency situations to resolve equipment and/or procedure errors. Planning, control and direction of a CAN implementation. Reporting and follow through of customer problems via various software tools. In depth Radio Base Station troubleshooting.

The person should be outgoing with excellent oral and written English skills and be a real team player. If you fit this description and would like to be part of our team here in Canada please submit your CV to the following:

Contact: Tim Danks Manager, Customer Support Organization Ericsson Communications Canada Tel: +1 905 629-6831 Fax: +1 905 629-6945 Email: Tim.Danks@emc.ericsson.se

Ericsson Eurolab Deutschland GmbH, Herzogenrath/Aachen, Germany

RESOURCE / COMPETENCE MANAGER

The EED/X/P department is responsible for 1/APT products, the design of the Mobile Switching Subsystem (MSS) within the Circuit Switching System House (CSS) as well as Function Test and Maintenance for the designed products in MSS

● As a Resource/Competence Manager you are part of the management team consisting of Frame-, Operations-, Resource/Competence Manager and Department Manager. You are responsible for 25-30 individuals from different disciplines within the department.

As a Resource/Competence Manager your main tasks are to monitor market and technology development to identify future competence demands, develop people to meet business demands, do resource planning and resource contracts with the projects, recruitment, appraisal and salary setting, be part of the assignment board and stay in touch with the ongoing operations.

You should have a strong interest in people and some leadership experience, a refined sense for picking up signals and a good communication.

Contact: Human Resources Simon Seebass EED.EED-SIMS +49 2407 575 163 or EED/X/PC Arthur Sliepen EED.EEDARS +49 2407 575 141

SYSTEM ENGINEERS (CSS) MIGRATION FROM GSM TO THE FUTURE

● We are working in the area of GSM 900, 1800, 1900 and UMTS systems.

We are looking for people that want to become system architect, technical coordinator or take a leading role in the forefront of mobile telecom evolution. You directly control the next version of Ericsson's products in the mobile world market.

Suitable candidates have proven experience in one or more of the following areas: O&M, CORBA, network management systems, middleware, telecom/real time operating systems, ATM protocols. In addition you are team and result oriented, take initiative and have good self motivation.

You should enjoy to work on an entrepreneurial basis and have the ability to set priorities right within an ever changing environment. Opportunities for travel, networking and personal and technical development are outstanding.

Please refer to our homepage: <http://www.eed.ericsson.se/services/eed-x-d/Welcome.html>

Contact: Per Ljungberg, +49.2407.575-609, eedplj@eed.ericsson.se Frank Adelhard +49.2407.575-287, eedfad@eed.ericsson.se HR: Simon Seebass +49.2407.575-163, eedsims@eed.ericsson.se

SOFTWARE DESIGN ENGINEERS (CSS)

● We are working with the GSM-system in the area of the MSS, dealing with the design, development and test of telecom software or design complete telecom systems. Programming experience e.g. (C++, C), background in telecommunications preferred with a working knowledge of structural design methods is required for this position. Relevant Ericsson experience is a plus.

If you are interested in joining a young and international team and you have good communication as well as good interpersonal skills.

Contact: Human Resources EED/H/R Simon Seebass Dial: +49 2407 575 163 Memo: EED.EEDSIMS Design Department: Gina Roge, Dial: +49 2407 575 254, Memo: EED.EEDGINA or Dave Hendersson, Dial: +49 2407 575 630, Memo: EED.EEDDHE

STE TEST ENGINEER (CSS)

● The position is located in the CME 20 SS STE Support Group under TCM. The group is responsible for supporting STE activities within CSS and CAPC in the area of function test, design maintenance and longer term Methods&Tools issues affecting testing. This central STE support group will not only support EED but also other LDC's that perform CME20 SS related test and maintenance activities.

As a suitable candidate, you have experience in AXE function testing or design maintenance. Experience with MGTS PASM, TSS 2000, TTCN and C coding is of added value. You also have to be service minded and prepared to quickly take new assignments.

In this position you will have the opportunity to travel, perform new tools evaluations, come up with new testing strategies and increase your network throughout Ericsson.

Contact: Human Resources Simon Seebass +49 2407 575 163 Memo: EED.EEDSIMS or EED/X/SOZC Raymond Meertens +49 2407 575 470 Memo: EED.EE-DRAMO

GPRS SYSTEM TESTERS

● The X/ST section takes the responsibility for the GPRS Indus Project, FRIGG1 being the first main release.

The GPRS System Testers are mainly responsible for planning, implementing and executing industrialisation tests needed to integrate and verify the new functionality on node level as well as on GSM network level.

Further activities are to issue and follow up requirements for test configuration and simulation tools and to build up competence in order to strengthen EED's competence in this area.

As a suitable candidate you have a profound testing experience and an interest in a challenging project where almost everything is new - new technology, new interfaces, new tools etc. In this position you will need strong analytical and communication skills as well as a very good knowledge of general telecommunications.

GSM system and GPRS interfaces. Experience with test/debugging of software in a Unix environment (C, Erlang), data communication and BSC experience is a clear advantage. You will have to be flexible, team oriented and able to work under pressure.

Contact: Human Resources Simon Seebass +49 2407 575 163 EED.EEDSIMS or EED/X/STC Klaus Boeckers +49 2407 575 181 EED.EEDKLB

SENIOR PRODUCT LINE MAINTENANCE TESTER GLOBAL SUPPORT FOR No.1 AXE APPLICATION

● The product line maintenance section at EED, Herzogenrath, Germany, takes central responsibility for the worldwide CME20 switching systems. It is considered as the primary competence center for CME20 SS.

Within CME20 SS we assume full responsibility for assembly, verification, implementation, FOA support and release of intermediate CN-G packages, Rapid Product Changes and DTI/GIWU software packages. We are the central development organisation for local and remote upgrade methods. Here our focus will be to create and verify automated upgrade, update and testing procedures.

You have at least 3 years of testing experience in AXE mobile switching, systems maintenance or support organisation, sound background in AXE test environment handling and IOG/APZ operation and maintenance. You have ASR competence, like to drive improvement and change, are effective in teamwork and are prepared to coach less experienced colleagues.

Opportunities for travel, networking, personal and technical development are outstanding.

Contact: Elke Busch, +49.2407.575-357, memo: EED.EEDELB HR: Simon Seebass, +49.2407.575-163, MEMO EED.EEDSIMS

EXPERIENCED TROUBLE SHOOTERS FOR GLOBAL SUPPORT OF THE NO.1 AXE APPLICATION

● The Product Line Maintenance section takes central responsibility for the worldwide CME20 Switching System. It is considered as a primary competence center for CME20 SS.

Our strong resources reflect our responsibility for trouble-shooting and testing on system level. Your contribution to the Help Desk team is excellent testing and trouble shooting experience in mobile AXE switching systems and their latest developments, commitment to provide solutions to our customers and team spirit. Develop your skills and develop your future with the CME20 Switching System Product Line Maintenance team. Opportunities for travelling, networking, personal and technical development are outstanding. Watch yourself make a global impact with your efforts.

Contact: Human Resources Simon Seebass EED.EED-SIMS +49.2407.575-163 or EED/X/SL Russell Hegg EED.EEDRUH +49.2407.575-668

CORE PRODUCT UNIT APPLICATION CORE (CAPC)

AMC and part of PN switching merged to CAPC. We are responsible for providing transit switching and network access functionality commonly used by all Ericsson's wireless and wireline systems and are heavily involved in system innovation initiatives.

GROUP LEADER CAPC VERIFICATION

The activities of the group will be function test (target and simulated environment), System Integration Test and CAPC maintenance test. This group will also include the FT and SIT leaders on CAPC level.

● The general responsibility of the group manager is to plan, lead and supervise the operations of the test group in CAPC. The main authorities and tasks are to perform appraisals, participate in recruitment, introduce new personnel and do competence development of the staff. It also includes to plan, establish and supervise the groups test activities and generate test strategies, quality assurance e.g. fulfilling the goals and resource planning.

As a suitable candidate, you are an Ericsson employee and should have good function test knowledge. You should be familiar in working in projects. Any managerial experience (e.g. as group manager, team leader or project manager) or experience in the traffic control area is a clear advantage.

SYSTEM MAINTENANCE ENGINEERS (CAPC)

● Your main authorities and tasks are to perform analysis of complex system faults and find a solutions to these faults. This may involve travel to the customer sites, which can be in any country where CAPC is in use. You would be expected to have knowledge in at least one mobile application system, and a broad AXE knowledge, detailed knowledge in at least two sub-systems is advantageous. You are expected to learn and develop across all the mobile applications. Key words on your personality, would be pro-active, self-initiative, outgoing, and result oriented. You would also be goal oriented and willing to share knowledge with others.

As a suitable candidate you have good knowledge of mobile telephone systems, you are flexible, show initia-

tive and have good communication & cooperation skills. The ability to work under pressure is also an important personal quality. Experiences from System Verification/Test are a clear advantage.

SYSTEM TEST ENGINEERS (CAPC)

● Your main authorities and tasks are to perform System Integration Test of CAPC products. This includes activities like Load test, Stability test, Robustness test and Accuracy test. Main areas are today IN, Datacom and ISDN. You will work with the definition and execution of SIT as well as trouble shooting on the faults found.

As a suitable candidate you have good knowledge of mobile telephone systems, you are flexible, show initiative and have good communication & cooperation skills. The ability to work under pressure is also an important personal quality. Experiences from System Verification/Test are a clear advantage.

The TEST unit will have as main responsibilities to perform verification of the CAPC product components and have an active role in CAPC customer support activities. The unit will furthermore also be responsible for verification project both on main (CAPC) as well as sub-project level. These projects perform in an international and intra-culture environment and is covering a vast range of development areas at the leading edge of technology, such as IS DN, IN and Internet accesses. To strengthen our activities we are looking for

SYSTEM TEST LEADER (CAPC)

● Your main authorities and tasks are to plan, coordinate and follow-up of System Integration test activities in the Overall CAPC projects. Furthermore you will also be the interface towards associated verification projects in project related matters and of course you will coach the team.

As a suitable candidate you have good knowledge of mobile telephone systems, you are flexible, show initiative and have good communication & cooperation, skills. The ability to work under pressure is also an important personal quality. Furthermore, fluency in written and spoken English is required. You should be familiar with System Verification/Test and/or Customer Support. Previous managerial experience, e.g. as Projectleader/Testleader is a clear advantage.

Contact: Human Resources Simon Seebass Memo-Id:EED.EEDSIMS Dial: +49 2407 575 163 or EED/U/TVC Mats Erlandsson Memo-Id.:EED.EEDMERL Dial: +49 2407 575 635

AXE10 DATACOM ENGINEER (CAPC)

The border between Telecommunication and Datacommunication is becoming more and more diffuse. CAPC needs to strengthen the competence in the datacom area focusing especially on Mobile interworking and TCP/IP. We need a person who can represent CAPC on the system level and who can contribute to the evolution of datacom within AXE10.

● Your job would be to perform datacom system studies, investigations and to develop datacom strategies. Some of the results could then be objects for prototyping in a lab environment. You will cooperate with colleagues within the Mobile Applications, PN and UAB.

We are looking for a system or software engineer with at least 4 years of Ericsson experience, preferable TCP/IP and/or mobile Datacom experience.

Contact: Human Resources Simon Seebass Dial: 02407/575-163 Memo: EED.EEDSIMS or Groupleader EED/U/OR Gert Wallin Dial: 02407/575-8058 Memo: EED.EEDGEW

SOURCE SYSTEM DESIGNER (CAPC)

● The general responsibility as source system designer is to prepare source system-documentation and maintain the source system. It also includes investigations of new tools and methods that could be used in the source system handling area. The new challenge will be to introduce the products related to System 108, which is the system architecture that will be used in the future. A task that is growing in importance is the product handling coordination that needs to be done towards the different system modules being part of CAPC, and also towards the users of the CAPC products.

As a source system designer you will be involved in all phases of the CAPC projects, since it is becoming more and more important to discuss system structures early in the projects. In the CAPC projects there is always one source system designer appointed as team leader taking the responsibility for the tasks related to the handling of the source system in the project.

We are looking for an engineer with 2-4 years experience from software design or system design in an AM based system.

Contact: Human Resources Simon Seebass Phone: 02407/575-163 Memo: EED.EEDSIMS or AMC System Kristina Martelius Phone: 02407/575-692 Memo: EED.EEDNKA

CAPC PROJECT MANAGER

The CAPC project office has a dynamic group managing key projects at the core of all applications. These overall projects encompass subprojects and associated projects in the Netherlands, USA, Ireland, Finland, France, Mexico, Brasil, Canada, Croatia, Denmark, Sweden, Norway, England, Spain, Italy, Germany and Greece cov-

ering a vast range of development areas at the leading edge of technology. Your task will be leading a large mobile telephone system project with full responsibility for fulfillment to our customer.

● Requirements: Degree in Engineering with specialisation in telecommunications or equivalent. At least four years work experience in technical aspects of telecommunications. Three years of proven experience in project management and good knowledge of PROPS, project planning, budgeting and management methods. Good knowledge of mobile systems and Ericsson business practices would be an advantage. Travelling is a natural part of the job.

Contact: Human Resources Simon Seebass EED.EEDSIMS +49.2407.575-163 or EED/U/OPC Imo Freese EED.EEDIWF +49.2407.575-469

PROCESS ENGINEER PROJECT (CAPC)

We are creating CAPC's software design environment of the future. This includes the evaluation and specification of new internal and external tools. We are looking for people who like to push the development and enhancement of the methods, processes and tools for system 108, which will be introduced for UMTS. You are responsible for the engineering of our future software design methods & tools and support their introduction into our development projects.

● As a suitable candidate you should have at least two years of software design or process engineering experience. You should enjoy to work with process management in an international organisation and see this job as a challenge to establish a world class environment for our design and test activities. This job implies the opportunity to travel.

Contact: Human Resources Simon Seebass EED.EEDSIMS +49 2407 575 163 or Manager Methods&Quality Andreas Bleeker EED.EEDANB +49 2407 575 394

GENERAL PACKET RADIO SERVICES (GPRS) EED/D

The Systemhouse GPRS (General Packet Radio Services) is responsible for the development, verification, support and supply of products in the field of GPRS. GPRS is aiming for the combination of data communication and mobility. GPRS is currently standardized as an extension of GSM. The department EED/D is responsible for the development and maintenance of the GPRS core systems OMS and PXM and for the GPRS applications VLR, SMS and PTM. For further support of our teams we are looking for

GROUP MANAGER GPRS SYSTEM MANAGEMENT

● Packet switching systems are gaining an increasing attention both within Ericsson organisation as well as on the telecom markets.

The system management group is responsible for standardisation activities, simulations, requirement engineering. Supporting the internal organisation and development projects as well as supporting different customer accounts. The work is performed in close cooperation with Kista and other design organisations.

The group consists of highly skilled and experienced system managers and operative product managers and will further grow during 1999.

Requirement for the position is to have a strong technical background. Experience as group/project manager or team leader is an advantage. A suitable candidate shows distinct ambition to apply his/her leadership skills and to focus on our people. He/she will also become a member of the GPRS management team at EED.

Contact: Torbjörn Lundahl +49.2407.575-149, memo: EED.EEDTOLU HR: Simon Seebass +49.2407.575-163, memo: EED.EEDSIMS

WEB DESIGNER AND CUSTOMER SUPPORT

In the Application Design Unit in the GPRS System House we develop end user applications for GPRS. The task comprise the design and maintenance of the official product web site including uploading correct software and documentation. One of the first tasks in this area will be to design and implement the customer and user database.

● You will take care of trouble report handling which means that you answer TRs and dispatch them within the team. The maintenance of the TR handling tool and the contact to the company who developed the tool belongs also to the field of responsibility.

As an ideal candidate you have a good technical understanding and you are interested in working at the border line between design, configuration management and product administration.

Contact: Human Resources Simon Seebass EED.EEDSIMS +49 2407 575 163 or Manager Design Ralf Wellens EED.EEDRAW +49 2407 575 182

Ericsson Inc., Global Resources Group and Wireless Software Research & Design Organization, USA

<http://www.exu.ericsson.se/EUS/GRG/>
<http://www.exu.ericsson.se/EUS/GN/home/index.shtm>

ENGINEER II, SOFTWARE

● Perform design activities for the CMS40/CME20 system, including writing/reviewing FS,FD,BD UD. Performing basic test. Supporting other designers. BS/MS in EE/CS plus 1-3 years experience. Must have PLEX design knowledge. Good interpersonal/teamwork skills. Good communication skills. Some travel may be required.

Located in: Richardson, Texas Requisition #99RR6353

ENGINEER III, SOFTWARE

● Perform function test activities for the CMS40/CME20 system, including: writing of TS/TI, function test execution, trouble shooting, attending reviews, and supporting lower level testers. BS/MS in EE/CS plus 3-5 years experience. Must have function testing knowledge. Good interpersonal/teamwork skills. Good communications skills a must! Some travel may be required.

Located in: Richardson, Texas Requisition #99RR6352

ENGINEER V, SOFTWARE

● Perform systems management activities for GSM internet telephony. BS in CS/EE or related technical discipline. Minimum of 7-10 years of experience in telecom and/or datacom. GSM experience preferred. Internet telephony experience a plus. Good written and verbal communication skills. Ability to work well in teams. Good interpersonal skills and high initiative and self motivation. Some travel may be Required.

Located in: Richardson, Texas Requisition #98RR3010 & 98RR3373

ENGINEER IV, SOFTWARE

● Perform systems management activities for GSM switching systems and internet telephony. BS in CS/EE or related discipline. Minimum of 5-7 years of experience in telecom and/or datacom. GSM experience preferred. Internet telephony experience a plus. Good written and verbal communication skills. Ability to work well in teams. Good interpersonal skills and high initiative and self-motivation. Some travel may be required.

Located in: Richardson, Texas Requisition #98RR3376

ENGINEER III, SOFTWARE

● Perform high level system investigations and provide technical market support for General Packet Radio Service (GPRS) systems. BS in CS/EE or related discipline. Minimum of 3-5 years experience in telecom field. GSM/GPRS/datacom experience a plus. Good written and verbal communication skills. Ability to work well in teams. Good interpersonal skills with high initiative and self motivation. Some travel will be required.

Located in: Richardson, Texas Requisition #98RR4719

ENGINEER V, SOFTWARE

● Strategic Product Management (SPM), Operation Product Management (OPM), and System Management (SM) position for customization of Intelligent Network (IN) services for the Americas. Main duties are to provide support to customers and write quick study analysis/technical reports based on customer input. Will be required to support the customization technically from feasibility to FOA.

BS in CS/EE or equivalent degree, and 7-10 years of software engineering experience. Highly proficient with prestudy and feasibility studies investigations in IN services. Good knowledge of SMAS, IN 2.3, IN 2.2, CAMEL, INAP CS1/CS1+, MIND 2.0 or 3.0. Knowledge of VPN, PN, PPS, and other commercial IN services a plus. Must be very flexible and open to a constantly changing environment. Must be a self starter. SMAS, Framemaker, Sun Workstation, PC. Some travel may be required.

Located in: Richardson, Texas Requisition # 98RR5580

ENGINEER II, SOFTWARE

● Perform test bed integration for both the target and simulated testing environments. This includes integrating software units, corrections (EC/AC) and exchange data into a working environment, performing basic "survival" tests, trouble shooting, performing function change and releasing dumps.

Requires a BS in CS/EE with 1-3 years of experience. Good oral and written communication skills; high initiative and self motivation; independent worker with a desire to learn and improve; attentive to details and high personal quality standards. Essentials: UNIX workstation and personal computer; experience with software testing, EMU, and MGTS. Able to work overtime as needed.

Located in: Richardson, Texas Requisition #98RR3381

ENGINEER III, SOFTWARE

● Perform GSM Base Station System (BSS) management activities. Knowledge of TAC, OSS, BSC, BSS, Radio Network, CMS88. BS in CS/EE. MS preferred. 3-5 years of experience in telecom, with 2-3 years in GSM. Experience in BSS area is preferred. Good oral and written communication skills. Good interpersonal skills and high initiative and high self motivation required. Position will require some travel. Good knowledge of ESOE (Ericsson Standard Office Environment) applications.

Located in: Richardson, Texas Requisition #98RR4786

ENGINEER V, SOFTWARE

● Perform GSM Base Station System (BSS) management activities. Knowledge of TAC, OSS, BSC, BSS, Radio Network, CMS88. BS in CS/EE. MS preferred. 5-10 years of experience in telecom, with 2-3 years in GSM. Experience in BSS area is preferred. Good oral and written communication skills. Good interpersonal skills and high initiative and high self motivation required. Position will require some travel. Good knowledge of ESOE (Ericsson Standard Office Environment) applications

Located in: Richardson, Texas Requisition #98RR4787

ENGINEER III, SOFTWARE

● Technical designer for the Simulated Test Environment (STE). Work with APZEMU, protocol simulators, device simulators/emulators and new technology in the simulation area. Work to introduce simulation tools as required. AXE-10 or STE experience, PLEX, ASA, APZ operation knowledge preferred. Understanding of UNIX required. C, C++, Shell programming beneficial. BSEE/BSCS, 3-5 years of telecom experience required. SS7 protocol test experience beneficial. PLEX design beneficial. Windows NT and Open Windows application design experience preferred. Knowledge of GSM systems (Switching & Radio) required. Equipment PC, Unix (SUN).

Located in: Richardson, Texas Requisition #98RR2920

Contact: debbie.ambrose@ericsson.com

Ericsson UK Ltd, Vodafone-International, Guildford

BUSINESS DEVELOPMENT EXECUTIVE

● Key responsibilities: Reporting to the Global Account Executive, the Business Development Executive will be responsible for building the and co-ordinating the international business for Vodafone. Driving our international business through building strong and lasting relationships at all levels with our customer. Negotiating at senior levels. Define and gain internal agreement to the strategic and operational account plan. Identify and agree opportunities to build revenue and develop long term competitive advantage. Co-ordinate all international activity within the account through the management of appropriate cross-functional teams. Identify and develop opportunities to win new business.

Qualifications / Experience: In order to qualify for the above role, you will: Have a thorough knowledge of the Ericsson Portfolio and a good global Ericsson network. Demonstrate significant experience and flair in your chosen career. Have previous experience in managing major projects. Be prepared to travel extensively to visit Ericsson and customer sites.

Skills/Competencies: Demonstrate excellent interpersonal and analytical skills. Demonstrate the ability to take a strategic and global perspective. Excellent team building skills.

Contact: Recruiting Manager: Kaj Snellman etl.etl-snel@memo.ericsson.se HR Contact: Angela Brook HR Contact Phone: +44 1 483 478194 etl.etlaabk@memo.ericsson.se

Nippon Ericsson K.K., Japan

AXE SYSTEM EXPERT

● We have one vacant position for an experienced AXE System Expert at our head office in Shin-Yokohama.

Your work tasks will include advanced trouble shooting for International exchanges (Transgate 2), provide technical competence for resolving complex problems in network, provide emergency corrections and technical support to customers, analysis of TR's and participate in the 24h Emergency Service.

We expect that you have at least 6 years working experience in AXE 10 Digital Switching Application Systems as well as good knowledge of APZ/IOG 11, CCITT No 7 signaling/ISUP. It is an advantage if you have knowledge and experience of IN.

You also need to have the ability to transfer your knowledge and skills to our local staff by training them and working with them.

You have to be fluent in spoken as well as in written English.

We presume that you are open-minded, outgoing and that you can easily adapt to a culturally diverse working environment. We are ready to offer a 1-year contract to the right person and we expect the starting date to be in May, 1999.

Contact: Ingvar Feltborg, Customer Support Manager for the group Phone no: +81 45 475 0073 Memoid: NRJ.NRJINF E-mail: ingvar.feltborg@ericsson.co.jp Christer Elmqvist, General Manager, Support Phone no: +81 45 475 0010 Thomas Ahberg, Human Resources Phone no: +81 45 475 0400

Ericsson Eurolab Deutschland GmbH, Nuremberg

The Design Center in Nuremberg, Germany, is responsible within PU SPP (Product Unit Speech Processing Products) for the transcoder device software in CME20/CMS40, CMS30, and CMS88 mobile communication systems. In the future we will also look into new speech processing products for UMTS and VoIP.

SOFTWARE DESIGN ENGINEER

● "Embedded DSP and Micro-Controller Software" You are experienced in writing programs in C or Assembler and able to integrate your software on the target hardware. You will be part of a small design team and your responsibility covers the whole software life cycle from pre-study, design and implementation to maintenance of existing software products.

We require +2 years experience in software design and good overall technical knowledge. An additional but not mandatory requirement is good knowledge in some of the following areas: modern Software Engineering Methods, Real Time Software, Real Time Operating Systems, Protocols used in Telecommunication and Information Technology, Digital Signal Processing, Speechcoding.

Contact: EED/N/HC Norbert Lechner, Tel.: 0911-5217-111, Nordostpark 12, 90411 Nürnberg, Germany e-mail: eednle@eedn.ericsson.se

Ericsson S.A, Spain

IN SUPPORT EXPERTS

● Job description : We are looking for four (4) "IN Support Experts" to work with IN (SCP-G) on-site, 2nd and 3er line support activities in Spain.

Our customers: Euskaltel (Idiazabal-project) Comunitel and Telefónica.

Your roll: You will be part of the support team in our CSO handling IN matters, having as main responsibilities to participate in support activities together with our Spanish team and with our customers providing on-site support and 2nd and 3rd line support, dealing with Emergency Situations, Implementation of new releases and corrections, and Trouble Report Handling.

You must be self-motivated and work easily with minimal supervision as well as within a team to achieve goals and customer requirements.

How Long: until 15 of March

Language: Knowledge of Spanish is a must.

Contract: Initial contract: 1 yr. (negotiable for 2 yrs.) You will be based in Madrid and living in an exciting country where no body is foreigner !

Contact: Juan Herrera, Customer Support Manager, Emejuhe@rioja.ericsson.se, Memo ID ece.ecejuhe

Ericsson Telecommunications Sdn Bhd, Malaysia - ECM

KEY ACCOUNT MANAGER

● We need a new KAM for our key account DiGi Telecom since our present manager is moving on to a challenging job in Taiwan.

The job involves taking full financial and operational responsibility in managing and developing the DiGi Telecom account with the help of 50 dedicated staff.

We believe that the right person for the job has the following characteristics: Experience from dealing directly with operator, negotiating contracts and closing deals. Experience from developing business cases and core three experience. Documented leadership skills. An interest in and respect for working in a multi-cultural environment is also very important to succeed in this job.

Contact: Olle Ulvenholm, +60 3 708 7100, memoid ECMOU Jan Signell, +60 3 708 7260, memoid ECMJWS Britt Alexanderson, +60 3 708 7145, memoid ECMBRIT

Ericsson Radio Systems, Professional Services, Kista

SHORT- AND LONG-TERM CONTRACTORS

Unique and challenging opportunity to gain invaluable experience by working as a contractor on short- or long-term assignments for Ericsson customers worldwide!

Professional Services is an Ericsson Business Unit that delivers business solutions and consultancy services to network operators around the globe. We provide expertise in both the commercial and technical aspects of network operations and work in partnership with Local Companies.

The Order Office within the Network Management Services product unit is now looking for people to go on contract, that is, multinational assignments at customer projects. Knowledge, skills, and flexibility are basic requirements, however, we are looking for people to match these positions. We are currently expanding our database and are now looking for several categories:

NM MANAGER

● Main responsibilities: You will lead and organise the work within the NO&MC to fulfil the targets for the section, governed by the performance levels agreed on with the customer, to ensure that the best practises are used in the work.

Requirements: The successful candidate has a technical education within Telecommunication, Information Technology and Electronics, good knowledge of general telecommunication and mobile telephony system. You have worked 2-3 years as manager for 75 persons. You have the ability to lead and motivate a multinational team and are conscious of responsibility. You also have experience with budgeting and negotiations with customers and suppliers. You should also be fluent in spoken and written English. Other languages may be needed depending on the local requirements.

SYSTEM TECHNICIAN LEVEL 1 AND 2

● Main responsibilities: You will be responsible for the surveillance of the network and will perform 24 hours surveillance of the whole GSM network by OSS and supervision equipment for Minilink and DXX.

You will also monitor, analyze and clear all faults reported by these systems and also complaints coming from Customer Care and other operators.

It will be your responsibility to introduce modifications to the systems as specified by work order. You call out the Field Technicians with a work order, when physical intervention in the equipment is needed, and escalate difficult problems to the System Engineers.

Requirements: The successful candidate has basic technical education and experience from Ericsson GSM radio systems, for Level 1 not less than 2 years and for Level 2 not less than 3 - 4 years. Good knowledge in English is required as well as good social- and pedagogical skills.

SYSTEM ENGINEERS, MSC/HLR/VLR

● Main responsibilities: You will be responsible for all telecommunication systems agreed on with the customer within MSC/HLR/VLR. The modification of existing system routines and creation of new temporary routines are also your responsibility as well as follow up of all software contents of the system.

You will send/receive/follow up with trouble reports sent to the supplier/customer and also prioritize the trouble reports, including incoming TRs from the other system engineers. You will also distribute all new and upgraded documentation in accordance with SW, HW and equipment to Network Surveillance and NFM Manager.

You will offer expert knowledge concerning system problems in MSC/HLR/VLR as well as expert knowledge regarding parameters and configuration, excluding the radio part.

It is also your responsibility to support technical interfaces with external equipment, i.e. SMS, VMS etc and to interpret switch statistical reports like processor load, traffic recording, etc.

Requirements: The successful candidate will have a basic technical education and experience from Ericsson GSM mobile system, as System Technician Level 2 not less than 3 - 4 years. Experience from OSS is required along with good knowledge in English and good analytical ability.

SYSTEM ENGINEER, SMS/VMS/AUC/

● Main responsibilities: You will be responsible for all telecommunication systems, agreed on with the customer within SMS/VMS/AUC/ including both Ericsson and 3rd part equipment. You are also responsible for the modification of existing system routine creation of new and temporary routines.

You will be responsible for all preventive maintenance of the systems and generate and control switching data as well as support technical interface towards external equipment, i.e. SMS, VMS etc.

Requirements: The successful candidate has a basic technical education and experience from Ericsson GSM mobile system, as System Technician Level 2 not less than 3 - 4 years. Experience from TMOS is required. You should also have good knowledge in English and good analytical ability.

SYSTEM ENGINEER, IN (INTELLIGENT NETWORK)

● Main responsibilities: You will be responsible for all telecommunications systems agreed on with the customer within IN SSP/SSCP/SCP. The modification of existing system routines and creation of new temporary routines are also your responsibility as well as follow up. You are responsible for all software contents of the system and all IN Services.

You will send/receive/follow up with trouble reports sent to the supplier/customer and handle and follow up all escalated problems. You will also distribute all new and upgraded documentation in accordance with SW, HW and equipment.

You will offer expert knowledge concerning system problems in SSP/SSCP/SCP as well as expert knowledge regarding parameters and configuration excluding the radio part. You will also prepare system plans for concerned systems.

It is your responsibility to verify data transcripts and installed service modifications sent via change request, produce data transcripts as required (e.g. parameter changes, etc.) and implement changes in IN Service data using Installed Service Modification in SMAS and/or GSA forms. You will also support technical interfaces with external network elements (e.g. SMAS, SDP, MSC etc.)

You will give priority to the trouble reports, which includes the incoming TR from the other system engineers.

Requirements: The successful candidate has basic technical education and experience from Ericsson GSM radio system, as System Technician Level 2 not less than 3 - 4 years. Good knowledge in English and good analytical ability is also required.

SYSTEM ENGINEER, RADIO (BSS/BSC)

● Main responsibilities: You will be responsible for all telecommunication systems agreed on with the customer within BS and Radio. You are going to offer expert knowledge concerning parameters and configuration of BS and Radio. You will also handle and follow up all escalated BS problems.

Requirements: The successful candidate has a basic

technical education and experience from Ericsson GSM mobile system, as System Technician Level 2 not less than 3 - 4 years. Experience from TMOS is also required. You should also have good knowledge in English and good analytical ability.

SYSTEM ENGINEER, TRANSMISSION

● Main responsibilities: You will be responsible for all transmission systems in the network. You will handle and follow-up reports concerning transmission and transmission equipment. You will also offer expert-knowledge concerning parameters and configuration of the transmission equipment.

As Minilink is used as transmission equipment you have to be very experienced in that area.

Requirements: The successful candidate has a basic technical education and experience from Ericsson GSM mobile system, as System Technician Level 2 not less than 3 - 4 years. Experience from DXX is required. You should also have good knowledge in English and good analytical ability. Knowledge in energy/power is desirable.

OSS/MMIS/SMAS ADMINISTRATOR

● Main responsibilities: You will be responsible for the OSS, MMIS and SMAS applications. This includes supporting advanced troubleshooting in the OSS/MMIS/SMAS applications. You will also work with report systems, application problems and follow up all trouble reports concerning the OSS/MMIS/SMAS supplier.

You will be responsible for the modification of existing OSS/MMIS/SMAS routines, creation of new and temporary routines as well as follow up.

You will handle all internal alarms in OSS/MMIS/SMAS applications and implement OSS and MMIS user interface layout modifications. You will also be responsible for distributing all new and upgraded documentation related to the SW, HW and equipment for the Network Surveillance.

Requirements: The successful candidate has basic technical education and long O & M experience, as OSS Administrator, from Ericsson radio system. Advanced knowledge of UNIX and SQL-programming as well as knowledge of TMOS and MMIS System Administration is required. You should also have good knowledge in English.

NFM MANAGER

● Main responsibilities: You will lead and organise the work within Network Field Maintenance to fulfil the targets for the section, governed by the performance levels agreed on with the customer. You will also ensure that best practices are used for the work and that the organisation is encouraged to continuous improvement of network quality and cost reductions for the operation.

You are also responsible for planning of the training and development of the Network Field Maintenance staff.

Requirements: The successful candidate has a technical education within Telecommunication, Information Technology and Electronics, good knowledge of general telecommunication and mobile telephony system; especially in installation and NO&M. It is of great advantage if you have proven experience in the maintenance of telecommunication. You have worked 2-3 years as manager for 75 persons. You have the ability to lead and motivate people and are conscious of responsibility. You also have experience with budgeting and negotiations with customers and suppliers. You should be fluent in spoken and written English. Other languages may be needed depending on the local requirements.

BS FIELD TECHNICIAN

● Main responsibilities: You will be responsible for guided corrective maintenance at replacement of HW at BS by following defined procedures. Tasks to be performed are ordered via Work Order from NO & MC.

Requirements: The successful candidate has basic technical education and not less than 2 years of experience from Ericsson GSM radio system.

SYSTEM FIELD TECHNICIAN (SWITCHES)

● Main responsibilities: You will be responsible for guided corrective maintenance at replacement of HW, of MSCs, HLRs and transit switches, following defined procedures. Tasks to be performed are ordered via Work Order from NO & MC.

You will also perform defined preventive maintenance routines of MSCs, HLRs and transit switches initiated by Work Order from NO & MC.

It is your responsibility to perform the charging data retrieval and deliver this to the customer's billing center in accordance to the existing routines and security regulations. You will also perform back-up of exchange-data in accordance to defined procedures.

Requirements: The successful candidate has basic technical education and not less than 2 years of experience from Ericsson GSM radio system.

SPARE PART ADMINISTRATOR

● Main responsibilities: You will be responsible for maintaining the store of spare/consumable parts, ordering new spare parts from suppliers and for servicing of tools, equipment and vehicles within the field maintenance organisation.

Requirements: The successful candidate has a basic technical education and additional economic/logistic education, and/or long experience from working with spare parts for operators. Good knowledge in English is also required.

MENTOR

● Main responsibilities: It will be your responsibility to investigate the training needs of new personnel and candidates. You will establish training plans for each of the individuals in the NO&M organization.

You will also be responsible for allocating the best, available training program for the organization and for guiding all personnel towards best possible skills by means of Structured On the Job Training (SOJT).

Requirements: The successful candidate will have a basic technical education and experience from Ericsson GSM Mobile System as System Engineers, not less than 3-4 years. Experience as teacher or instructor is required. You should also have good knowledge in English and good social- and pedagogical skills. Please, apply in writing with full Curriculum Vitae, containing details of your education, experience, reference and name of your current Manager.

Application: Odette Abiad E-mail: odette.abiad@ericsson.se Memo: erac.eraodab Find CV template att: http://rtms/jobs/jobs.html. It is important for us to know: when you will be available for an assignment, that your line manager is aware of that you have the intention to undertake an assignment.

Ericsson Radio Systems AB, Kista

LOCAL PRODUCT MANAGER - CHINA

TDMA Systems (BMOA) is one of the fastest growing business units within Ericsson Radio Systems. We are the market leader for cellular telephone systems and services based on TDMA/AMPS standards. Our mobile telephone system, CMS 8800, is the most sold system in the world, and our markets around the world are growing rapidly.

● Are you a person motivated in using your technical support knowledge to assist the Local Company in China, based in Hong Kong? -If so, you are a potential candidate for this position. We are looking for a Local Product Manager (LPM) who will work closely with the Customer, the Customer Account managers and the Sales and Marketing people.

As a LPM, you will be expected to perform tasks like: Participate in the promotion process through technical lobbying. Analyze the technical sales support needs of the Local Company, according to the market situation and Customer's technical requirements. Technically assist the sales people in making offers to the Customer. Support the Customer in resolving product related issues. Support the introduction of all suitable ERA processes and methods to the Local Company and the Customer. Support the introduction of all suitable ERA products to the Customer. Do product planning and Product Life management for the market.

The ideal candidate has an engineering degree and three or more years experience in technical support/product management in the cellular industry or equivalent experience. You are fluent in English.

You are self-motivated, ambitious, outgoing and interested in taking the challenge of being a real support to the Local Company and a valuable adviser for the BMOA commercials areas. Could you meet the challenge? If yes, then contact us.

Contact: AM/P Christina Hyllander + 46 8 404 56 69 christina.hyllander@era.ericsson.se AM/P Johan Lembre + 46 8 404 69 06 johan.lembre@era.ericsson.se Application: Ericsson Radio Systems AB AH/H Catrin Düsing 164 80 STOCKHOLM catrin.dusing@era.ericsson.se

Ericsson US.

AXE and OSS Troubleshooters needed in U.S.A, Totowa, New Jersey, 15 minutes from New York City.

AXE TROUBLESHOOTERS

● We are currently seeking qualified engineers who can support GSM CMS40 for our two customers located on the East Coast of the U.S.A., Omnipoint and Sprint. The qualified candidate should already be working in a customer support organization or verification department. The candidate should possess an in depth knowledge of Troubleshooting AXE problems using Test System, Plexview, and knowledge of ASA code. In addition, knowledge of how to use MHS and MSS is desired. We are looking for immediate short term resources, 6 months, and long term resources throughout the beginning of 1999. The area of expertise for AXE Troubleshooters are in MSC and BSC.

OSS TROUBLESHOOTERS

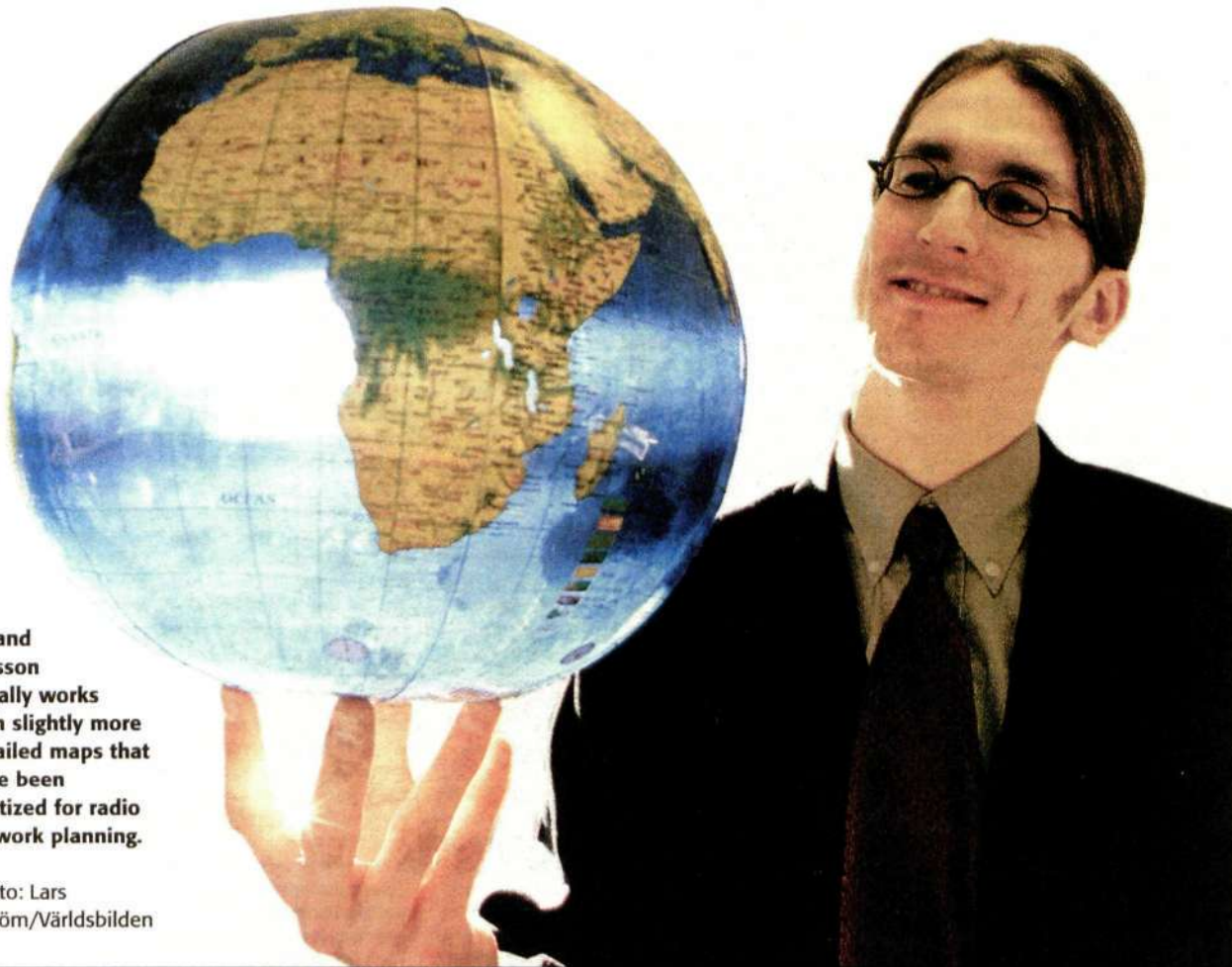
● We are currently looking for two OSS troubleshooters. They must already be working in a OSS support role, or in Design. The successful candidate should possess in depth UNIX knowledge, and be familiar with Sybase. Candidates with BGW, SOG or SMAS experience will be considered.

This is an excellent opportunity for professional, personal and cultural enrichment. Travel, on rotational call and team spirit are a requirement.

Contact: Customer Care Manager, David DiMenichi at +1 973 890 3596 or Memo EUS.EUSDDI or Resource Recruiter, Heather Nordin at +1 770 565 6991 or Memo EUS.QUSHENO

Checking the map

They are surveyors and geoscientists and devote all of their working hours to maps. An unusual occupation at Ericsson, perhaps, but a very important one for planning mobile telephone radio networks, regardless of which system standard is being installed.



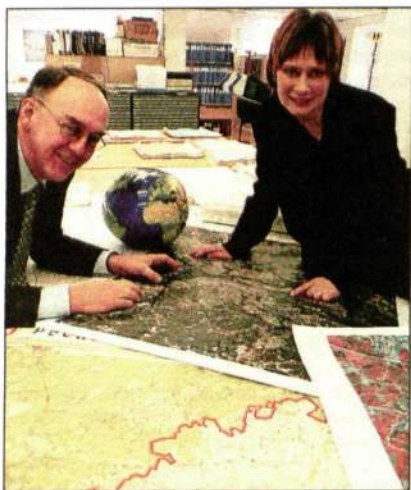
Roland Jansson usually works with slightly more detailed maps that have been digitized for radio network planning.

Photo: Lars Åström/Världsbilden

He's got the whole world in his hand

We are involved in projects from their early stages. It's common for radio network planning based on digital cartographic data to be submitted as part of bid proposals to potential customers," says Robert Stenlund, who manages the group.

The fact that mobile telephony has become increasingly important to Ericsson is reflected in the number of employees in the group. Four years ago there were six,



Robert Stenlund and Lena Luning compile digital map data. A total of 14 people work in this field in Stockholm.

today they number 14. The group, located in Stockholm, is part of the GSM Systems business unit but also works on other systems and has assignments all over the world.

"Good cartographic data improves radio network planning by allowing more accurate determination of the number of base stations needed, which means customers can make the appropriate investment. By studying digitized maps in the office, cell planners can save themselves some work prior to going out into the field to take measurements," says Roland Jansson.

Important to have good maps

The most critical aspect of the job is to find maps that truly correspond to reality.

"This is a great map of Tatarstan," says Lena Luning, holding up a large, colorful map. "But," she adds, "it's unusable because it lacks coordinates."

It is also important to make sure that the maps are not outdated, since both cities, and the landscapes around them, can change. Tall buildings are built and forests are cut down – things like this affect radio coverage. A good example is Hong Kong, whose cartographic picture has changed with the construction of a new airport on a man-made island. Satellite images is often necessary to obtain current information.

In order to produce digital maps, the group uses a geographic information system known as Smallworld.

A few years ago, large digitizing tables were used, but now maps are scanned and digitization occurs directly on the monitor.

Develop their own tools

In terms of technology, the group has developed several tools themselves.

Anna-Stina Andersson demonstrates her work on a city in South America. Aerial photos are scanned and, using a digitizing pen, she interprets various categories of buildings. After a few additional steps, the completed geographic database is delivered to cell planners on CDs.

Now that technology is moving towards smaller and smaller radio cells, the need for databases that also include building heights has increased considerably. Almost all projects involve maps for outdoor coverage, but there are exceptions such as Stockholm-Arlanda airport, for which an indoor coverage database has been developed.

Gunilla Tamm

gunilla.tamm@era.ericsson.se

<http://gsmssystem.ericsson.se/lp/SupportUnits/lps/lpsk.htm>

UPCOMING

March 18-24: CeBit trade fair in Hanover, Germany. Contact will be there to bring you the latest.

Contact is to publish a web version of the popular and much appreciated schematic overview of the organization, which was presented in the preceding issue. Keep an eye on Contact's web site, which you can access on <http://inside.ericsson.se>

At the beginning of April, the final contract for the Erieye order from Greece is expected to be signed. The order is worth SEK 4.5 billion.

March 23: Ericsson's Annual General Meeting will be held at Stockholm International Fairs at 5 p.m.

UPDATES

Ericsson presented its Annual Report on March 2. Contact 4/99 will be accompanied by a financial supplement covering the Annual Report.

Ericsson has purchased land in Plano, a suburb of Dallas, USA, to allow for expansion there.

The human resources organization has formed a unit, Competence and Talent Management, which will ensure that Ericsson has access to the skills and talent that it requires. The group will be led by Per-Olof Nyquist.

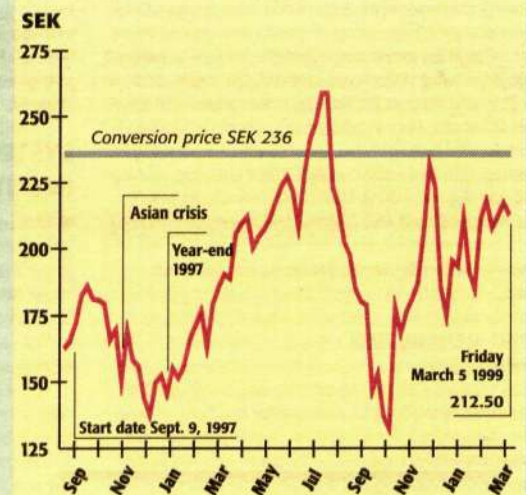
NEW ASSIGNMENTS

Per Zetterquist becomes information officer for the Enterprise Solutions segment, succeeding Harald Simons, who is leaving Ericsson.

Örjan Mattsson has been appointed head of the Communicators product unit within the Consumer Products segment.

Ulf Berg has been appointed new president for Ericsson Microwave Systems AB. He was previously vice president for Saab Ericsson Space since 1992. Ulf Berg succeeds Jan Åke Kark who is the new president of Telia.

THE ERICSSON B SHARE



An Extraordinary General Meeting of shareholders on September 9, 1997, approved a proposed convertible debenture program. The conversion period extends through June 30, 2003. For additional information, access the web site: <http://inside.ericsson.se/converti.htm>

